

ИЗПОЛЗВАНИ ИЗТОЧНИЦИ:

- 1) <http://vbox7.com/play:06de8491> , „Компютърна диагностика на Вашето тяло“; интервю по телевизия ББТ с д-р Росен Рачев
- 2) <http://tv7.bg/news/health/2209602.html> , „Нови технологии за биодиагностика“ , репортаж на телевизия ТВ7, 19.11.2011г.
- 3) <http://www.chudesa.net/nelechimite-zabolyavaniya-prez-vekovete/> , „Нелечимите заболявания през вековете“ , курсова работа,

Векове наред чумата и холерата са били неличими, вземали са хиляди човешки жертви, унищожавани са цели градове. Докато през миналия век Александър Флеминг открива пеницилина и ерата на много от нелечимите тогава болести приключва. Сега страшните холера и чума се лекуват с обикновени антибиотици. В миналото всяка държава е имала своите характерни заболявания, а пътешествениците са разнасяли инфекциите по целия свят. По този начин испанците, открили Америка, са заразили индийците с вариола, чума и редица други по-малко опасни за европейците заболявания, които обаче са били изключително смъртоносни за коренното население. Съществува версия, че на свой ред индийците са се “отплатили” на Европа със сифилиса. Сифилисът е наричан и “испанска”, и “френска”, и “холандска” болест. Грипът първоначално и бил “руска” болест, а през 20-те години на миналия век стана “испанка” и отнесе живота на около 20 милиона души. Напоследък все повече, поне в научните среди, се говори за червеите-паразити, предизвикващи т. нар. “слонска болест”, която води до отичане на крайниците. Но главното заболяване в Африка, след като отчетем лавината от ХИВ-инфекции, продължава да е маларията. На второ място се нареждат чревните паразити (амеби, хелминти), които на фона на другите проблеми се смятат за нещо подобно на дисбактериоза – на практика с тях живее по-голямата част от населението. И накрай най-опасни са треските, към които африканците са си изградили имунитет, но за европейца те много често имат летален завършек. В страните от Северна Африка и Близкия Изток най-голям е рискът от остри чревни инфекции – коремен тиф, дизентерия, а освен това хепатит А и Е. Честа гостенка там е и холерата, особено в пренаселена Индия, където често не се спазват необходимите санитарните условия. Горещият климат повишава риска и от заразяване с паразитни червеи и малария. От много векове там господстват острите чревни инфекции и маларията. Но местното население страда и от алкохолизъм. Например 60% от мексиканците злоупотребяват с алкохола. Афганистан с продължаващата 35 години война се смята за страната на болните. Всеки трети афганистанец страда от туберкулоза, всеки десети – от венерическо заболяване, а 90% от населението са с чревни паразити. На север от Афганистан е разпространен коремният тиф, а на юг – маларията. Бичът на съвременните европейци са сърдечно-съдовите и онкологичните заболявания, които са свързани с лошата екологична обстановка, употребата на алкохол, цигари и продукти с високо съдържание на холестерол. Разликата се състои в това, че в Западна Европа главният рисков фактор е високата телесна маса и нивото на холестерол, а в Източна – алкохолът. В Източна Европа най-лесно можете да се заразите със СПИН в Украйна, където от болестта е заразен повече от 1% от населението, на второ място – в Естония (0,9%), Молдова (0,815%) и Русия (0,755%). В Италия, Англия, Франция с заразени 0,2- 0,3% от населението. Колкото и да е странно, в либералната Холандия тази цифра е два пъти по-ниска. Най-безопасни трани са Германия и Норвегия. По-малко от 0,1% са заразените със СПИН в Монголия, Китай, Куба и арабските страни – поне по официални данни. В популярните туристически страни рискът се увеличава : Бахамите– 2,8%, Тайланд – 1,1%, Доминиканската република – 1%. В Африка статистиката умножава по 10 и дори по 20 – Намибия – 17%, Зимбабве – 19%, Ботсуана – 23%, Свазиленд – 34%, т.е. повече от 1/3 от населението. В резултат на глобалното затопляне някои типични за тропиците заболявания се появяват и по-на

север. Маларията вече е достигнала Москва, а в Швеция се появиха енцефалитните кърлежи. Мигрирането на инфекциозните болести от юг на север според специалистите е особено тревожна тенденция, защото се засяга население със слаб имуноен отговор. Ето 10 от най-загадъчните заболявания на нашето съвремие, за които науката все още търси лечение: [Синдром на хроничната умора](#)-страдащите от този синдром не могат да станат от леглото в продължение на дни. Те просто нямат сили за това, макар че се хранят нормално и не са подложени на никакви физически и умствени натоварвания. Понякога тя настъпва след вирусна инфекция (с вируса на грипа или на Епщайн-Бар, който предизвиква инфекциозна мононуклеоза). Според някои специалисти обаче инфекциите са случайни или са резултат от понижения имунитет в ранните етапи на развитие на синдрома. [Болестта на Кройцфелд-тя](#) е по-известна като болестта „луда крава“. От нея човек може да се зарази, ако се храни с храна, съдържаща месо от болно животно. Всички случаи на това заболяване сред хората до момента завършват със смърт. Все още не е открито лекарство срещу нея. [Шизофрения](#)-тя е едно от загадъчните психични разстройства. Човекът, страдащ от това заболяване, не може да прави разлика между реалността и фантазията. За шизофренията са характерни симптоми като халюцинации, несвързана реч, различни мании. Учените все още не са успели да разработят тестове, с помощта на които да се открива болестта в по-ранни стадии от нейното развитие, а провежданото лечение е само поддържащо. [Автоимунни нарушения](#)-към тях се отнасят болести като кожната туберкулоза и морската болест. Тези заболявания са много и всяко едно има индивидуален характер. Затова причината за тяхното възникване остава загадка за учените. [Алотрифагия](#)-тази болест още се нарича „извратен апетит“. Проявява се при някои хора като физическа или психическа потребност да ядат например тебешир, хартия, стъкло или пръст. Някои учени свързват заболяването с недостига на минерали в организма. За сега обаче това са само предположения и точните причини за него не са установени. [Болест на Алцхаймер](#)-с възрастта паметовите възможности у всеки човек намаляват. При страдащите от болестта на Алцхаймер влошаването на паметта е бързо и необратимо. Причината за тази болест остава неизвестна, поради което за сега все още няма и ефективно лечение. [СПИН](#)-първият случай на заболяване от СПИН е бил констатиран през 1980 г. Известно е, че се предизвиква от вирус. Може да се предава от човек на човек по полов и по кръвен път. Днес ХИВ вирусът е разпространен навсякъде. Особено силно страдат от него африканските държави. Медикаменти и ваксини против СПИН все още няма. Ебола е смъртоносна болест, регистрирана основно в Африка. Треската се пренася основно от гризачи (плъхове и мишки), които живеят близо до човека. [Сибирска язва](#)-източник на инфекцията са домашните животни – крави, овце, кози, камили, прасета. Заразата може да се предаде при контакт с болни животни, при клане на добитък, както и при обработка на месото и кожата им. [Чугунгунята](#) е още по-опасна от „птичия грип“. Това е ново страшно заболяване, което се пренася от комари. Предизвиква се от вирус „чугунгуня“. Броят на заболелите от тази болест и починалите от нея са значително повече от тези, поразени от „птичия грип“. [Болестта на „пълзящата кожа“](#)- с нея учените са се сблъскали съвсем наскоро. Симптомите ѝ наподобяват кадри от научнофантастичен филм. Страдащите от това загадъчно заболяване усещат, че под кожата им като че ли пълзят насекоми. По-късно на тези места се появяват отворени рани. Науката все още не може да обясни това заболяване. Не е намерено и лекарство за лечението му.

4) http://www.nls-diagnosis.com/main_page.html ; Нелинейна компютърна диагностика

ДИАГНОСТИКА НА ЦЕЛИЯ ОРГАНИЗЪМ ЧРЕЗ НЕЛИНЕЕН СИСТЕМЕН АНАЛИЗ (NLS – ДИАГНОСТИКА)

ЕКСПРЕСНА КОМПЮТЪРНА ОЦЕНКА НА СЪСТОЯНИЕТО НА ОРГАНИЗМА БЕЗВРЕДНО И БЕЗБОЛЕЗНЕНО ИЗСЛЕДВАНЕ НА ВСИЧКИ ОРГАНИ И СИСТЕМИ

ОТКРИВАНЕ НА ИНФЕКЦИОЗНИ ОГНИЩА

ОТКРИВАНЕ НА БОЛЕСТНИ СЪСТОЯНИЯ И ПЪТИЩА ЗА ТЯХНОТО

ОТСРАНЯВАНЕ

ОЦЕНКА НА ИМУНИТЕТА

ЦВЕТНО ГРАФИЧНО ИЗОБРАЖЕНИЕ НА ОРГАНИТЕ И ТЕХНИТЕ ИЗМЕНЕНИЯ

Тази диагностика позволява измерването на изменението на вълновата характеристика на магнитните полета на живите организми (известни като биовълни), на техните тъкани, отделните клетки, ензими и хормони. В рамките на един час абсолютно безвредно и безболезнено, с помощта на компютър се изследват всички системи в човешкия организъм на органно, тъканно и клетъчно ниво.

Вие получавате информация за:

- Състоянието на сърце и бели дробове, щитовидна, задстомашна и хипофизна жлеза, хипоталамус, черен дроб и жлъчен мехур, бъбреци, полови органи, млечни жлези, простата;
- Ранна диагностика на заболявания като: захарен диабет, артериална хипертония, инфаркти, инсулти, аденоми, злокачествени новообразувания и др.;
- Хронични заболявания и посттравматични състояния;
- Състоянието на имунната система;
- Предразположеност към алергии и техните причинители (алергени), токсичност;
- Наличие на вируси, паразити и бактерии.

Изследването се документира чрез комплект от цветни разпечатки на проблемните органи и епикриза.

Лечение:

- Комплексни профилактични и лечебни програми в зависимост от стадия на заболяването
- Терапия "МЕТАТРОН" за възстановяване на естествения акционен потенциал на клетъчната мембрана, водещ до нормалния и биохимизъм.

ОПИСАНИЕ НА ИЗСЛЕДВАНЕТО НАКРАТКО:

Експресен, безболезнен и неинвазивен преглед на целия организъм. Само за 1 час получавате информация за състоянието в момента на всички ваши органи и системи. Възможност за това дава диагностиката с апарата "МЕТАТРОН" - руска (до преди няколко години засекретена) апаратура, използвана за космическа медицина. По настоящем се използва в NASA (САЩ), а в последните години и масово сред цивилното население в Русия, Украйна, Полша, както и почти всички държави от западна Европа. Официално апаратурата е призната за МЕДИЦИНСКА в Русия, Украйна, Германия, Чехия и Англия. В останалите държави все още се смята като алтернативен медицински метод. Сега всеки може да се възползува от нея и да надникне в своя организъм по различен от досега познатите ни методи на изследване. Дори може да провери до колко дадено лекарство е ефективно при неговото заболяване. Чрез апарата "МЕТАТРОН" се прави запис на електромагнитното излъчване на мозъка, където е проектирано състоянието на всяка клетка от органите и се изобразява на екрана като картина и графика, която се сравнява с графиката на нормалното функция според пола и възрастта, заложената в апарата. Така се установява има ли отклонение. Нелинейната диагностика представлява запис на електромагнитното поле на мозъка. Всеки орган има определена електромагнитна честота и по нея се определя промяната на функцията му.

Апаратът дава възможност да се съкрати времето за функционална оценка на организма.

- Регистрира измененията в органите и позволява:
- Да се получи качествена оценка на функционалното състояние на организма.
 - Да се проконтролира адаптивната способност на организма.
 - Да се проведе анализ на динамиката на функционалното състояние на организма по време на лечение.
 - Да установи първичното място на функционалното нарушение.
 - Да се оцени характера на патологията, използвайки експертни системи.
 - Да се оценят основните параметри на хомеостазата.

МАЛКО ФИЗИКА

Системата за нелинеен /NLS/ анализ се основава на използването на спектралния анализ на вихровите магнитни полета, които всеки биологичен организъм притежава. Тези полета са по –известни под името „биополе”. Именно „биополето” осъществява преноса на информация както вътре в самата жива клетка, така и между отделните клетки и групи клетки в биологичния организъм като цяло. Сведенията за „биополето”, акупунктурата, тайнствения поток „чи” и т.н. съществуват още от зората на човечеството. За тях свидетелстват индийската Аюрведа, традиционната китайска медицина и много други писмени и устни източници.

Здравият организъм нормално е в стабилно енергетическо състояние. Всяко паталогично състояние /болест, вирусна или друга инфекция и т.н./ предизвиква промяна на това състояние. Именно тези промени са обект на анализ след зафиксирването /улавянето/ им с прецизната апаратура на метатрона „МЕТАТРОН”. На екрана на компютъра се появява виртуален образ на изследвания орган или система /системи/ със съответните обозначени точки в местата , от които е получена изходната информация. Тази информация съдържа данни за енергетичното състояние на съответните клетки и органи. Разшифрованата информация се извежда под формата на цветни картини и текст, които могат да се распечатат.

В програмния продукт, с който се обработва постъпилата информация, са заложили данни за състоянието на съответните изследвани клетки, органи, системи от ниво „здрав” до „болест в последен стадий на развитие”. Сравнявайки постъпилата информация от дешифрираните мозъчни сигнали със записаната в паметта се получава автоматично ясна и еднозначно определена картина на състоянието на съответните клетки, органи, системи. Но това далеч не е всичко. Програмата, чрез много прецизен математически анализ, може да даде предвиждане как ще се развие в бъдеще даден болестотворен процес, както и да открие замаскирани процеси / в ремисия /. По този начин апарата се явява незаменим помощник за всеки, който е потърсил помощ, за да си направи превенция на собственото здравно състояние.

Освен изтъкнатото до тук в компютърната програма са заложили данни за лекарствени и хомеопатични средства, биологично активни хранителни добавки, фитотерапевтични и други средства даващи възможност за ефективното лечение и възстановяване на организма. Сравнявайки ги със съответния болестен процес може да се препоръчат най-подходящите от тях за постигане на бърз, траен и възможно най-безопасен оздравителен процес. Чрез съответна програма може да се направи тестване на лекарствени и други средства, доколкото те са съотносими /безопасни/ за прием, спрямо индивидуалните биологични характеристики на вашия организъм.

ТОВА СПЕСТЯВА МНОГО СРЕДСТВА, ВРЕМЕ, А МНОГО ЧЕСТО И НЕБЕЗОПАСНИ МАНИПУЛАЦИИ И БОЛЕЗНЕНИ ПРОЦЕДУРИ ПРИ ИЗВЪРШВАНЕ НА ЛАБОРАТОРНИ ИЗСЛЕДВАНИЯ, ТЕСТОВЕ И АНАЛИЗИ.

ДОПЪЛНИТЕЛНА ИНФОРМАЦИЯ:

Ранната компютърна диагностика и прилагането на без лекарствени методи за профилактика и лечение днес са особено привлекателна възможност за всеки от нас. Такава

възможност предлага уникалната и без световен аналог изследователска система за нелинеен анализ –NLS, която може да се отнесе към най-удивителните и перспективни достижение на естествознанието и медицината в началото на XXI век.

Системата за компютърна диагностика Оберон, а по-късно подобрения вариант МЕТАТРОН и компютърната програма "Метапатия" са разработени да измерват и анализират измененията на вълновите характеристики на магнитните полета на живите организми, на тяхната тъкан, на отделните клетки и даже на отделните ферменти и хормони, без отрицателни за здравето въздействия. Това позволява абсолютно безвредно да се получи най-пълна информация за здравето на човека, дори за съвсем началните прояви на заболяванията (в това число ракови и туморни).

Такава ранна и безвредна компютърна диагностика не е по възможностите на другите съвременни медицински апарати (ултразвук, рентген, компютърна томография и даже на създадените през 90-те години на XX век апаратури като безвредна диагностика IMEDIS, EXPERT, VEGA и др.), които могат да установят само вече оформен процес.

Информацията, която получаваме от телеметричната обработка на данните с нелинеен анализ, е далеч по-богата и създава цялостен детайлизиран образ на функционалното състояние на обследвания организъм, прави качествена оценка на всеки орган, на неговите части и функции.

Чрез NLS метода се открива огнището на функционалните нарушения, оценява се характера на патологията и адаптивните способности на организма, контролират се ефективността и резултатите от прилагането на различни методи на терапевтично въздействие и се анализира динамиката на изменение на функционалното състояние на организма по време на лечението.

Може да се провери от какви витамини, минерали и микроелементи имаме или нямаме нужда и кои са най-подходящите за нас хранителни добавки, хомеопатични или козметични продукти.

Това изследване може да открие склонност към някои заболявания и да прогнозира възникването им. То установява скрити заболявания, които могат да протичат без видими прояви.

Уникална е възможността на NLS да извършва медикаментозно тестване и да определя най-подходящите за изследвания пациент лечебни средства.

Възстановяването на нормалната жизнена дейност на организма в случаи на остри и хронични заболявания чрез метода на биорезонансна ниско - честотна терапия (Имаго-терапия) и пробуждането на скритите резерви на организма посредством получени с помощта на апаратурата информационни препарати са друга забележителна възможност на системата за NLS анализ.

- 5) <http://www.oberon-bg.com/bg.html>, Компютърна диагностика на вашият организъм

Какво е Метатрон "Оберон" и Диагностика Оберон?

Метатрон "Оберон" (Metatron Oberon) е разработен от изследователите на Института по Приложна Психифизика* в Русия. Той е уникален уред, който изследва и диагностицира напълно безвредно и безболезнено всяка тъкан и всеки орган във вашият организъм. До скоро използван единствено в космическата медицина, днес Метатрон "Оберон" е достъпен за всички.

Диагностика Метатрон Оберон се извършва чрез проследяване дейността на мозъчните неврони. Както е известно, мозъка събира и съхранява информация за клетките, тъканите и вътрешните органи на нашият организъм. Чрез телеметрична обработка на данните с помоща на т.нар. система за нелинеен анализ (NLS – non-linear analysis system)** и на представяне виртуално изображение на човешките органи, Оберон Метатрон позволява да се:

- Извърши цялостна оценка на човешкия организъм с точност до 97%;
- Диагностицират заболявания в най-ранен стадии;
- Разпознаят различни видове алергии, бактерии и паразити;
- Проследяват и анализират действията на храна, витамини и медикаменти;
- Определи нивото на имунната система;

Диагностика Оберон има много преимущества, някои от които са:

- Бърза – необходими са не повече от 60 минути за цялостно изследване на човешкия организъм;
- Безболезнена – докато всеки орган в тялото ви се изследва и диагностицира вие няма да усетите абсолютно нищо;
- Безвредна – изследването не крие никакви опасности за човешкия организъм;
- Евтина – NLS нелинейната диагностика е доста по-евтин метод за изследване от колкото всички други с които сте се сблъскали;
- Надеждна - този уред е в пъти по-надежден от всеки друг вид познат до момента уред за диагностика на човешкото тяло. Да вземем за пример следните групи заболявания:

Групи Заболявания	М етатрон Оберон	Ултр азвуков Скенер	Комп ютърен Тумограф	Я дрено- магнитен Резонанс
Гастроенте рология	74 -86%	24- 28%	19- 23%	30 -34%
Пулмологи я	65 -72%	9- 14%	10- 13%	23 -31%
Гинекологи я	78 -82%	16- 18%	14- 16%	21 -25%
Ендокринол огия	52 -65%	7-9%	11- 14%	13 -16%

Онкология	-42%	38	6-8%	12-	16%	-23%	18
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Съществуват четири модела Метатрон “Оберон” различаващи се по версия на използвания за изследването софтуер, честота на работа и точност на диагностиката. Ние ви предлагаме Метатрон Оберон 4011 (виж сертификати [тук](#)). Той предоставя до 90% точност на изследването и диагностицирането на проблемни органи или области в човешкото тяло, проследяване действието на медикаменти и т.н. Благодарение на софтуеър-а Метатапия 3 (Metapathia 3)*** използван при Метатрон “Оберон” 4011 могат да се диагностицират някои от следните заболявания в най-ранен стадий:

- Онкологични;
- Костни;
- Гинекологични,
- Бъбречни;
- Белодробни;

Как се Извършва Диагностика Оберон

За да се подложите на диагностика МЕТАТРОН “ОБЕРОН” (Metatron Oberon) не се налага никаква предварителна подготовка. Единственото което е необходимо е да отделите един час (60 мин.) от времето си и да ни посетите (виж карта – линк към страницата контакти). Ние ще ви помолим да поставите слушалките, които са част от апаратът МЕТАТРОН “ОБЕРОН” (Metatron Oberon), и да ни позволите да пристъпим към изследването.

Всеки орган и тъкан на изследваното тяло се разглежда по няколко начина:

1. На енергийно ниво – разглежда се енергийното състояние на индивидуални точки от изследваните органи;

Това е първоначалния изглед, който апарата Оберон представя след като направи измерването. Всеки такъв изглед се състои от две нива – първото ниво представя изследвания орган или тъкан, а втория - серия от пространствено разпределени диполи които изобразяват индивидуалното енергийно ниво в изследваната зона. Така на екрана на компютъра ще се появят следните изображения, като всяко има своето значение:

 Латентно, суб-оптимално регулирано физиологично ниво;

 Оптимално регулирано физиологично ниво;

 Физиологични изменения в регулярната система;

 Високо изменено състояние на регулярната система;

 Компенсирана дисфункция на адаптивните механизми;

■ Декомпенсиране на адаптивните механизми, ясно изразена патология.

2. Чрез спектър на равновесие – заедно с всяко изображение на енергийно ниво се представя и спектър на равновесие. Той представя нивото на измервания по време на изследването сигнал.

3. Чрез спектър на ентропия – чрез него се изследва силата на заболяването по петобална система.

4. Чрез нелинеен анализ (NLS – non-linear analysis system) – той спомага за максимално точно проследяване на фазата на развиващите се процеси и заболявания.

Изследването тяло се сравнява с идеално такова на човек на същите години и пол създадено от апаратът.

6) http://www.oberon-eu.com/en/page/show/how_to_buy

HOW TO BUY

You can purchase your OBERON device and program as follows:

- To order by telephone or e-mail below. Prepayment via bank transfer is required. Credit cards are not yet accepted. We can send your device to you via any express courier service (DHL, FEDEX, Pony Express, UPS)

- To get in touch with our manager by phone or e-mail to arrange your visit to Moscow. If you purchase your OBERON device in Moscow, you get a free training course how to use it. This training is provided by our experienced medical doctor in Russian and English

- To purchase from our dealers in Ukraine, Moldova, Europe, Canada, Africa, Middle Asia, Near East.

Order by telephone: +373 7967 6484 Kishinev, Moldova (EU Head-office)

In Romania, Moldova, Ukraine, Bulgaria, Serbia, Turkey, Syria, Iran, Iraq, Egypt, Central Africa and Middle East countries you can buy the system through:

“BIOSCANER”

Ivanov Aleksei – EU Head Office Director
Tel: +373 7967 6484 (Kishinev, Moldavia)

E-mail: wertikoo@yahoo.com www.oberon-eu.com

FOR DEALEARS

Dear Prospective OBERON Distributor,

Thank you for your interest in the OBERON Device. The information you have viewed on this web site provides you with some of what you will need to evaluate our program and product. Naturally, we also welcome any of your questions or comments.

Corporation IVENTUS has been in business since 2001, and in that time we have developed a sound reputation. With hundreds installations across Russia, Europe, USA and other parts of the world it is an inexpensive tool for early detection and prevention of a vast majority of diseases that cannot be detected on early stages by using the methods of conventional medicine.

Last year we developed a new version of the OBERON device and software (TITANIUM-META), which opens up new opportunities for doctors and their patients and requires the expansion of our current dealer network. That is why we have decided to share the wealth and bring on independent distributors experienced in their local communities.

This way we can distribute the OBERON all over the world much easier by selling the OBERON Device to distributors in their own areas.

IVENTUS INVEST WITH ITS BRAND - OBERON - **IS LOOKING FOR DISTRIBUTORS.**

You can make money — a great deal of it — and IVENTUS is interested in forming a relationship with partners experienced in the non-conventional medicine devices markets. We have an extensive experience with Russian and foreign market and our standards of working with our business partners are high.

If you purchase just one device, you can become then our dealer and receive free training on the product in our Moscow/Chisinau office. If you wish to receive training in your offices, our English-speaking specialists can come to you but at your own expense.

If you would like more information on becoming a distributor, call us at +373 7967 6484 or click on vertikoo@yahoo.com to get a [Distributor Program Package](#). Be sure to send the following important information with your request.

- Your name
- Your phone number
- The area you are located in.

The [Distributor Program Package](#) will provide you with all the information you will need to pursue a true ground floor opportunity in your area.

Sincerely,

Alexey

Ivanov

EU Head Office General Director

SUPPORT

Complementary support available, response within 24 hours...

TRAINING

There is an opportunity to learn work on the equipment with the assistance of the user manual (text and video), which comes complete with hardware or you will receive 14-hours (3 days) of training ...

SERVICE CENTER

Our service center...

CHANGE OLD MODELS

We change old models of bioresonance devices...

SUPPORT

Support: Complementary support available, response within 24 hours. On-site training and support VIA internet/web, training on location depending on distributor. Yearly conferences are held for all owners of OBERON.

Updates: Continuous development of software and hardware is an ongoing process to ensure our clients have the most state-of-the-art and cutting-edge technology at their disposal.

The Warranty: 2 year standard warranty; but please contact company after warranty expires.

The Price: OBERON offers its superior biofeedback NLS-systems at a price that is significantly lower than the competition!

TRAINING

There is an opportunity to learn work on the equipment with the assistance of the user manual (text and video), which comes complete with hardware or you will receive 14-hours (3 days) of training ...

«IVENTUS INVEST CORPORATION » was founded in Russia in 2001 with the support of highly talented professionals, doctors, physicists, engineers, programmers, designers, psychologists and others.

The main objective of the company - creation of systems for in-depth diagnosis of the human body. To do this, for two years, specialists have been investigating many types of diagnostic techniques for analyzing and assessing the state of the organism. Diagnostic mechanisms were produced across a wide variety.

One of the most common methods of analysis and assessment of the human body, including of private doctors, was the method of nonlinear analysis, or NLS-diagnostics. This technique brings the company one of its former developers who wished to remain incognito, therefore, for ethical reasons, will not be named. The technique has been adjusted and improved by engineers, programmers and doctors and continues to improve. In addition to the system of nonlinear analysis the company «IVENTUS INVEST CORPORATION » developed other areas of diagnostic and therapeutic technologies. Great importance is given to research of new techniques and technologies. Carefully monitored by the appearance on the market of new technologies of detection and analysis, output of new sensors for their implementation, which immediately are incorporated into the software and devices of «IVENTUS INVEST CORPORATION».

Thus the company «IVENTUS INVEST CORPORATION » can guarantee our users the best devices and techniques that get excellent results. We hope that cooperation with us and our technologies will reward you with numerous victories over human diseases and infirmities!

7) <http://wellness-studio.co.uk/knowledge/oberon> , Park Land-Natural Health Clinic

Oberon

According to its inventors, Oberon "allows diagnosing not only pronounced pathological processes, but also the earliest forms of the diseases or predisposition to them," however it "does not belong to the class of medical equipment and consequently does not have to be registered with the committees for certification and licensing of medical-purpose equipment."

The telemetry data processing diagnostic device for the non-linear analysis "Oberon", (further the device) is intended for the express estimation of the human organism status, which is based on registration of changes in human body organs and histological structures; for the dynamic control of the homoeostasis condition, as well as providing the prognosis of treatment stages and possible complications.

The device is used in clinics and branches of treatment-and-prophylactic establishments.

The diagnostic device allows the doctor to essentially reduce time of the express estimation of the condition of a human organism as a whole system. The device is intended for registering changes in human body organs and histological structures and allows:

- Receiving quality estimation of the functional condition of a human organism in the form of the peak analysis;
- Checking efficiency and results of the most various methods of therapeutic treatment;
- Estimation of the adaptive abilities of a human organism;
- Carrying out the analysis of dynamical changes under functional condition of a human organism during treatment;
- Establishing primacy of the functional infringement locus;
- Estimating pathology character, using expert systems;
- Estimating homoeostasis key parameters.

The system of non-linear diagnostics NLS

The associates of the Institute of Practical Psychophysics (IPP) have actually made a revolution in the development of computer system which are able to independently detect and correct defects and pathologies in human organs and tissue! The Institute staff have produced analogue – free diagnostic equipment which enables to keep a close watch on all the stages in the transition from health to illness, via fluctuating wave characteristics of body tissue and even individual cells or chromosomes. Non-linear diagnostics system are the most advanced medical technologies which presently, on the threshold of the XXI century, can be considered the most wonderful and promising achievements is medicine, they comprise unique diagnosis equipment based on spectral analysis of vortex magnetic fields in living organisms. NLS affords an opportunity to receive the most detailed

information on health or the earliest disease manifestation, including cancer conditions, which is hardly possible in using other investigation techniques, such as ultrasound investigation, X – Ray examination, computer – aided tomography, nuclear magnetic resonance (NMR) et al., which can only detect a developed condition.

A great number of experiments carried out at the IPP confirm a close relationship between magnetic fields and biological system with the fields being used in biological system as a means of extra – and intracellular interaction. The vortex magnetic fields is of importance to information transfer and interaction with biological system. How do biological system recognize and pick out the necessary information from the background noise and in what way do intra – and extra – cellular communications take place? The research on energetic fields around living plants and animals, that was done at the Institute, have brought to the conclusion that around biological systems there exist an exceedingly weak low – frequency magnetic fields. In trying to figure out the world of energetic fields we have come close to understanding the phenomenon of the bio-field which people have been aware of from time immemorial with some evidence being found in the Ayur – Veda and traditional Chinese medicine. The scientific discoveries that are the foundation of this method technologically add to the age – old wisdom of Oriental medicine which is based on an energetic conception of acupuncture as a means of biological system control. In taken up the Chinese meridian system we can see enigmatic Chi – flow which, in every way, reminds us of coherent photon flow. Experiments on rabbits showed that animals, just like human beings, have a most delicate system of tubular structures, approximately 0,5 to 1,5 micron in diameter. America scientist B. Kim managed to make a discovery according to which the terminal points of acupuncture meridians reach the cellular nucleus of muscular tissue. There are lots of ways to influence the meridian system with a view to healing but they don't seem to have much effect. The equipment developed at the IPP enables to determine the condition of stable existence of any material system (object) irrespective of its structural organization (mechanical, physiochemical, biological or sociological), the human body included. According to the Theory of quantum entropy logic the information exchange between system take place distantly, associatively and selectively due to the quanta of electromagnetic radiation having an energy equivalent to that of breaking the bonds of the system's elementary structure. The principles of Theory of quantum entropy logic give reason to assert that in the course of information exchange in biological systems there arise non – stable (metastable) states in which the probability of the system's destruction increases sharply. The Oberon metatron, which is the basis of the introduced diagnostics system, operates according to the principle of amplification of the initiating signal with the metastable system breaking up. In terms of physics the metatron is a system of electronic oscillator resonant at wavelength of electromagnetic radiation with its energy being adequate to that of breaking the dominant bonds with maintain the structural organization of the organism under investigation. Magnetic moments of the molecule currents, affected by external physical fields, lose their initial orientation which causes disalignment of the spin structures of the delocalized electrons of the cortex neuron admixture centres, and that gives rise to unstable metastable states with their break – up having an amplifying effect on the initiating signal. The hardware – software complex developed at the IPP enables to produce a specific bioelectric activity of brain neurons with make it possible to selectively amplify signals, faintly detectable against the statistical fluctuations, and the extract and decode the information they carry. In a certain way the Oberon apparatus “Takes the bearings” of this radiation just where it is being emitted in order to decode and display it later on the computer screen where a virtual model of the object is made in the certain colour. If, to follow the rules of quantum chromocinetics, you represent the entropy values of a system as spectral colour, the tints will change from pale yellow (minimum entropy values) through orange to red and purple, nearly black (maximum entropy value). More accurate computer – aided theoretical estimates enable to define a series of stationary states corresponding to a certain entropy potential and selectively interacting with the spectrum of electromagnetic radiation. Computer tomography and ultrasound scanners give doctors a three – dimensional projection of internal organs foreshortened in any required way. An agreed colour

superimposed on the picture enables the doctor, on an intuitive basis, determine the colour of the homeostasis failure area on the organ projection. By comparing the tints of the range of colours and their arrangement on the computer – displayed model of the organ as well as dynamics of their change with time one can see how destruction processes go on in biological structures and make prognoses about the organism's health status. To find out a pathology the doctor investigates individual continuously decreasing cartographic quadrants (fractals) plotted and displayed by the computer until he or she localized the pathology nidus to an extreme precision. It's the first time the world's market has presented the latest medical technologies in the field of active homeostasis control program on the market, the research workers of the Institute of Practical Psychophysics have caused a revolution in the development of information techniques intended to correct faulty intraorganismal balance – homeostasis and counter – act some environmental or effective pathological agents. For the first time in the world the research workers of the IPP have managed to develop effective equipment which is able to automatically, with no man involved, tune to the frequency of nervous impulses of the organism and independently detect and correct defect and pathologies in organs and cells of the organism by means of a combination of different specifically modulated electromagnetic oscillations recorded on a matrix. The fundamental principle in the development of the equipment was a hypothesis that a human organism has a electromagnetic information framework which can respond to external electromagnetic radiation. The associates of the IPP have managed to bring together some different separate friends in natural medicine and thus actually make a qualitative leap by working out a method of active homeostasis control. Direct consideration was given to homeopathy, Chinese acupuncture further advanced by Folle, Morell and Schimmel; the Indian Yajur –Veda and the chakra theory; the spin theory; phytotherapy at al.

Theoretical and practical work that made it possible for the IPP to develop the Oberon apparatus, a low – frequency quantum generator, was started at the end of XIX century by the electronics genius Nikola Tesla. Later it was carried on by some scientists whose names are worthy of mentioning. J. Lakhovsky, an outstanding French researcher, studied the effect radio – frequencies on the animals' health and the condition of plants. The great American scientist R. Rife made some research on the effect of both radio - and electrical – frequencies on the human biological field. In 1950 R. Folle of Germany discovered and worked out an electrical testing system using acupuncture points on the human body. Unlike Folles' electropuncture diagnostics method according to which energetic potentials of organs and system are measured through biological active points (BAP) that indirectly (often with substantial error) reflect the condition of an organ, the method of NLS diagnostics worked out at the IPP assesses the organ's condition directly due to the resonance amplification of the radiation of the organ under investigation and by taking the readings in a contactless way by means of trigger sensors. Every organ and cell has its own distinctive oscillations which are recorded in the computer memory and can be displayed on the screen as a certain plot that shows the conditions of the information exchange between the organ/tissue and the environment. Every pathological process has its own individual plot too. The computer memory has a great number of pathological processes recorded, with a degree of manifestation, age, sex and other differences taken into account. Having taken the frequency characteristics off the organ diagnostics equipment can compare them by the degree of their spectral likeness with some reference processes (healthy, disease – affected tissue, infective agents) and reveals the most similar pathological process or a tendency towards its origination in the case of combinatory processes the virtual diagnostics mode enables to differentially diagnose any process. A wonderful opportunity offered by NLS – diagnostics is medicinal testing. The diagnostics system also gives some unique opportunities to record frequency oscillations of any medicinal preparations and according to the spectral characteristics, make an immediate compute – aided comparison of all the preparations stored in computer memory (which may be about several thousands in number) with the characteristics of the pathological process and thus find out the most efficient remedy.

The method of NLS – diagnostics enables:

- to make a qualitative assessment of the functional condition of the organism as phantom topical analysis;
- to control the efficiency and effect of various methods of therapeutic influence and assess the adaptation abilities of the organism;
- to make an analysis of the dynamic change in the functional conditional of the organism during the treatment;
- to find out the primary nature of the nidus of a lesion;
- to evaluate the nature of a pathology listing some expert system.

In the light of what was said above every disease can be presented as a failure of harmonious synchronization in a biological object. Such kind of failure can be caused by various sources which, in their turn, can occasionally be regarded as disharmonizing electromagnetic oscillations which make blocks (noise) and interfere with normal functioning of the organism. It can be endeavoured to solve the problem of originating disharmonious oscillations in terms of some laws of physics. Evidently, the simplest way would be the use of electromagnetic oscillations with the opposite sign so that the algebraic sum of disharmonious and inverted electromagnetic oscillations would become equal to zero. With those conclusion in mind, in the middle 70s Dr. F. Morell together with E. Raset, an electronics engineer, invented a technique and device called Mora. The method of information therapy (metatherapy) is a subsequent improvement of the Mora technique designed to solve the problems of restoring the normal vital functions of the organism in the cases of acute or chronic diseases. The scientists of the IPP have turned to the experiments by Prof. S. Smit of Manchester University who proved that water could “remember” coherent frequencies with which it was teated in a variable magnetic field and store those frequencies in its structure for a certain time. The method of information therapy is a way to influence the patient’s body with a combination of different modulated electromagnetic oscillations produced by the Oberon apparatus and correct the deranged intrabodily balance and coherent radiation by means of information preparations (metazodes).

8) <http://www.aliens-d.com.ua/eng/compare.htm> Health center "Alians-d"

Comparison Biolaz – Oberon / Dianel with other well-known diagnostics methods

ultrasonic inspection	nu clear-magnetic resonance
(USI)	(NMR)

Recently the nonlinear systems (NLS) are gaining ever more popularity. Even in those rare cases where the clinical semeiotics is very typical, the method of NLS-diagnosis with Biolaz – Oberon / Dianel provides additional information on extension of the affection and allows evaluating the prognosis. The method with Biolaz – Oberon / Dianel is often of a primary significance for making diagnosis and, consequently, making the right choice of a treatment.

In 2000 it was 20 years from the day of creation of the quant entropy logic theory which serves as the basis of this method. Thus, the nonlinear diagnosis with Biolaz – Oberon is the youngest one among all methods of the hardware diagnostics.

In 1988, a trigger sensor was proposed, thus laying the foundation for the idea of the apparatus Biolaz – Oberon. Immediately an active work was started on creation and development improvement of diagnostics NLS. The time period form 1990 through 1995 was characterised with clinical tests for the initial apparatuses Biolaz – Oberon. The late 90-s was marked with a rapid growth on commercial manufacture of the apparatuses Biolaz – Oberon and a leap forward in quality of the produced results.

The nonlinear diagnostic method is still on the stage of its development. Methodologies for diagnosing are developing so fast that systems’ versions have to be updated every six months. Due to introduction of new apparatuses supplied with trigger sensors, NLS-diagnosis not only became faster,

but also acquired new quality. Evidently, dynamic methodologies, such as three-dimensional visualisation of the examination results, will be introduced into the day-to-day practices very soon. The method of vegetative testing can be cited as an example of a fast introduction. It is being so widely applied that a more precise range of indications would rather be discussed than its popularisation.

Research centres continue to search for new methods of investigation based on the systems of a nonlinear analysis. The results are more than promising.

NLS-analysis, unlike NMR and computed tomography, does not require high-voltage fields. This method seems to be prospective for metabolic studies, in particular, on a cell level. Of all methods of hardware diagnostics, the NLS produces a picture that is most approximating to the pathologoanatomic one. This condition along with its safety encourages a rapid development of the NLS-diagnosis method.

Much can be said about advantages of the bio-resonance diagnosing, the NLS. The method is very good, indeed. It is indicative that its popularity has greatly increased in the recent years.

To dot one's "i's" and cross one's "t's, we have considered three mostly used methods of examination, such as USE, nuclear-magnetic resonance – NMR, and computed tomography – CT, comparing these to the NLS. More details about this are available under corresponding references on our site.

Each "+" symbol indicates a good quality of any particular feature of a method. Accordingly, symbol "-" – indicates a bad, unworthy or dangerous one.

The methods have been evaluated by three major and most important points:

- What is being examined – number of organs that can be examined by the method.
- Exposure to rays – any harmful exposure of the body during diagnosis, either X-rays or electrical waves.
- Side effects – consequences and prohibitions against undergoing this type of diagnosis. So, the general conclusion is:

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"+" – a set of good qualities

"-" – a set of bad and dangerous qualities

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U S E)	(N M R)	(
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- 9) <http://www.nls-oberon.narod.ru/device.htm>, Institute of Practical Psychophysics, Device "Oberon"
Device

The device for telemetric nonlinear analysis data processing "Oberon" was developed by the Institute of Practical Psychophysics, Omsk. The device does not belong to the class of medical equipment and consequently does not have to be registered with the committees for certification and licensing of medical-purpose equipment. The device has safety certificates according to the GOST in terms of radiation level, etc., that certainly allows people licensed for medical practice to use it as an auxiliary means of diagnostics, just like any other electrotechnical device, computer, for instance. The device cannot cause harm to health of the patient (according to the GOST). Operation of the device is summarized in detecting divergences between the input and output signals on different frequencies, and the program which is included in the complex, selects the most similar etalons of this or that process. Naturally, the measurements accuracy depends on the quality of equipment, and accuracy of classification of the process occurring in the body depends on conformity of the data acquired by instrumentation to statistical data (etalons). The responsibility for the diagnosis lies on the operator, that is on a medically educated person.

The principles of operation of the «OBERON» apparatus that is related to the class of «brain machines» (metatrons) are based on the basic postulates of the Nesterov-Van Hoven theory of quantum entropy logic. In accordance with the quantum entropy logic theory the exchange of information between the systems is carried out distally, associatively and selectively, at the expense of quanta of electromagnetic radiation that possess energy adequate to the energy of the disintegration of bonds of the system elementary structure. The principle of the entropy logic theory allows to ascertain that in physical systems, in the course of information exchange, unstable (metastable) conditions occur under which a probability of their disintegration increases significantly. The intensity of information exchange of two information-exchanging systems A and B increases as the order in either of these systems gets disturbed. The degree of orderliness of any system is equivalent to the quantity of information it contains; therefore, the order destruction in one of the systems (A) with a parallel transfer of the information to the second system (B) delineates the law of conservation of information postulated by the theory of quantum entropy logic. The theory of entropy logic established that these statements are true in terms of physics only if A- and B-systems are quantum systems, and the aggregate of A and B parts may be characterized by one quantum state. This stipulates the availability of initially existing information exchange that occurs prior to the destruction of one of the systems and this, within the framework of the entropy logic, combines both parts in a single quantum system since this complies with the effect of Einstein - Rosen - Podolski. The theory of quantum entropy logic makes it possible to explain many of the details of fundamental psychophysical mechanisms that are involved in the long-distance transfer of information between two objects spaced from one another. The theory reveals mechanisms that form associativity, information selectivity and other characteristics of an exotic channel of data transfer like this. The apparatus operates on the basis of amplifying an initiating signal at the disintegration of metastable structures. Under the action of external magnetic field magnetic moments of molecular currents in the admixture centers of cortex nerve cells lose their initial orientation, and because of this, spin structures of delocalized electrons get disordered, thus resulting in the occurrence in them of unstable metastable conditions with their disintegration acting as an amplifier of the initiating signal. From the viewpoint of physics the apparatus is essentially a system of electron oscillators (cadistors) resonating at the wavelengths of electromagnetic radiation with their energy being adequate to the energy of the

destruction of dominating bonds that support the structural organization of a biological object. Information of biological object specific condition is taken up by way of non-contact method with the aid of a «trigger sensor» developed with the use of new information and microcircuit technologies, this sensor detects slightly detectable signal fluctuations that are emitted from average-statistical noise characteristics of fields and converted into a digital sequence processed with the aid of a microprocessor for transferring via an interface cable to a computer. If, guided by the rules of quantum chromokinetics, the entropy values of any system is represented as spectrum colors, the hues will be changing from pale yellow (entropy values are minimum) through orange to red and purple, nearly black (entropy values are maximum). More accurate theoretical calculations carried out with the use of a computer make it possible to single out a series of stationary conditions corresponding to a certain entropy potential that selectively interact with the spectrum of electromagnetic radiation. Comparative analysis of the hues of the color range and their arrangement on the object computer-based model, and also of the dynamics of their change as a function of time, makes it possible to make assessments on how the disintegration processes of material structures go on and to make forecasts about the stability of these structures with time. Given below is the representation of those principles which, being realized, are the means of functioning of this system as a diagnostic system. For each variety of cells there is its own specific destructive energy, typical of certain intracellular molecular bonds. By changing accordingly the radiation characteristics of the electromagnetic generator - metatron (cadistor) it is possible to cause the destruction of bonds of intracellular structures (and associated spin orientation of biomolecular compounds) in the cells of any tissues of an organism. It is very obvious that the more unstable and, therefore, already damaged state are the tissues under examination, the greater will be the response in compliance with the quantum entropy logic. In this case scanning frequencies will coordinate the response position, and this, combined with the response value, will outline the general geometry of disturbances built up in the organism. And, since the response is detected at the expense of psychophysical phenomena functioning, we have additionally introduced a series of physical impacts to activate the examinees' brain function and resonance-tune it (visualization of organs being positioned on the computer display, use of associativity principles). An energy dispatch that breaks the typical molecular bonds that is used in the positioning process, is always coupled with the resonance of corresponding electronic transitions in the cadistor structure. And on the basis of this resonance and the released energy (at the destruction of the spin organization), due to the origination of metastable nonlinear processes in the cadistor structure, quantum excitation occurs that generates the amplification of a response signal emitted by the organism.

The Institute of Practical Psychophysics has produced original investigation system, which makes it possible to trace any conditions in the body through changes in the wave characteristics of tissue, individual cells, chromosomes and even separate ferments and hormones. The diagnosis equipment is based on the spectral analysis of the vortex magnetic field of any biological object. It is quite unique and unparalleled in the world today. Numerous experiments performed at the Institute of Psychophysics confirm a close relationship between the vortex magnetic fields and biological systems with these fields being used in biological systems as a means of extra - and intercellular interaction. The vortex magnetic fields play an important part in information transfer and interaction with the various biological systems. How do biological systems recognise and isolate the necessary information from the background noise and in what manner do extra and intercellular communications take place? The research carried out on the energy fields around plants and animals, by the Institute has concluded that there exists an extremely weak low-frequency vortex magnetic field around all biological systems. In trying to understand the energy fields which surround all living things we have come close to understanding the bio field phenomenon, the existence of which has been known of since time immemorial, with some of the evidence found in the Yajur - Veda and in Chinese medicine. The scientific discoveries underlying this method are simply a technological addition to the centuries old tradition of Oriental medicine based on the energy conceptions of acupuncture for regulating the body. If we turn to the Chinese meridian system

we will learn of the mysteries of tsi flus which in energy terms is similar to that of the coherent photon flux.

The American scientist B. Kim succeeded in making a discovery as to which of the terminal points in the acupuncture meridian were actually found to reach the cell nucleus. There are a great many means of influencing the meridian system for therapy purposes but their effects are not strong enough.

Computer models also give physicians a three dimensional projection of the internal organs (or a shortened version if preferred). Coloured marks placed upon the picture make it easier for the doctor to determine the site of a pathological process. It is possible to judge the process of the disintegration of these biological structures, and to make a prognosis, by comparing the range of colours of the marks and their arrangement on the computer model of the organ, using the dynamics of their change over a period of time. In order to define a pathology in an area it is necessary to investigate deeper levels of the organ produced on the screen by the computer until the pathology nidus is localised. It is the first time that advanced information technologies in the field of active homeostasis control are being introduced into the market. The research workers at the Institute of Practical Psychophysics have made a breakthrough in the development of information preparations for the correction of the disturbed homeostasis balance within the body and the neutralisation of environmental and infectious pathological agents. This is the most active homeostasis control program today.

The researchers at the Institute were the first to succeed in producing this most effective equipment that is capable of tuning to the frequency of the master pulses automatically without human intervention, as well as, detecting and correcting defects and pathologies in organs and body cells on its own. This is achieved through a combination of different specifically modulated magnetic oscillations recorded on a matrix.

The fundamental concept in the development of this equipment was the hypothesis that the human body has an electromagnetic information framework that is able to respond to external radiation. The staff of the Institute of Practical Psychophysics managed to bring together different and separate trends of Valeology creating a quantum leap in working out a method of active homeostasis control. They then dealt with homeopathy and Chinese acupuncture with its further elaborations by Folle, Morell and Schimmel; the Indian Yaju - Veda and the charkas spin theory ; phytotherapy and many other methods of healing. Theoretical and experimental work that has made it possible to produce the "Oberon" (Oberon-spectrum, Oberon-Spectrum-M, Oberon-Solo) system - a non-linear quantum generator- which was initiated by Nikola Tesla, a man of genius in electronics at the end of the nineteenth century. Other scientists who are worth mentioning later carried on this work. J. Lakhovsky, an outstanding French researcher, studied the effects of radio frequencies on animal health and plant conditions. The American scientist of genius, R. Rife conducted research not only on the effects of radio frequencies but also on the effects of electrical frequencies on the human biofield. In 1950 in Germany R. Folle discovered and worked out a system of electrically testing the acupuncture points of the human body. Unlike Folles' electro-puncture diagnosis method in which the energy potentials of organs and systems are measured through biologically active points (BAP) which affect the bodies condition indirectly and (often with considerable error). The NLS method of analysis developed at the Institute of Practical Psychophysics makes an evaluation of the organ' s condition directly due to the resonance amplification of the radiation signal of the organ under investigation using a non-invasive trigger sensor. Every organ and every cell has it's own distinctive oscillations which are stored in the computer memory and can be displayed on screen as a graph, which represents the conditions of the information exchange between the organ (tissue) and the environment. Every pathological process also has it's own distinctive graph stored in the computer memory with all the progressive stages shown with age, sex and other variations taken into account. After reading the frequency characteristics of the biological process under investigation, the

system compares the degree of their spectral similarity with healthy, and pathologically affected tissue, or infection agents, to obtain the closest pathological process or tendency. By combining these processes a virtual diagnosis can be achieved and a different diagnosis made for each process.

Another wonderful opportunity offered by NLS-analysis is medicinal testing. The investigation system provides a unique opportunity of recording the frequency fluctuations of any preparation and adding them to the many thousands already held in the database. The system then searches for a remedy that has the closest spectral characteristic of the pathological process and selects the most efficient remedy.

In the light of what has just been said, any disease can be represented as a disturbance of the harmonic synchronization in any biological object. The disturbance may be brought about by different causes that in turn can be regarded as disharmonic electromagnetic oscillations causing blocks (noise), which interferes with the normal functioning of the body. It is now possible to eliminate these disharmonic oscillations by applying the laws of physics. In this case the simplest way would be to use electromagnetic oscillations with the opposite sign in order that the algebraic sum of the disharmonic and inverted electromagnetic oscillations would become equal to zero.

Guided by these conclusions in the mid 70's, Dr. F. Morell together with another electronic engineer E.Rachet invented a method and a device called 'MoRa'. The method of information therapy (META-therapy) is a further advancement of the 'MoRa' method of solving the problem of restoring the body's normal functioning in the cases of acute or chronic diseases. META-therapy is a means of influencing the body through a combination of differently modulated electromagnetic oscillations emitted from the "Oberon" (Oberon-spectrum, Oberon-Spectrum-M, Oberon-Solo) system. The scientists at the Institute then became interested in the experiments of Prof. S. Smith of Manchester University who had proved that water could 'remember' the coherent frequencies to who's radiation it was exposed, in a variable magnetic field, and retain in it's structure the information about those frequencies for a certain period of time. This means that an effective correction of the disturbed balance, within the body, can be made by means of information recorded on a matrix. Information preparations (metazones) are specific combinations of coherent frequencies chosen by the computer and are used to provide ready-made dosage forms with a direct effect. They are produced by means of the apparatus that transfers the frequency (spectral) information taken from the pathology nidus into a matrix (water, alcohol, or lactose), to be used in the course of treatment. The metazones have the effect of awakening the body's own hidden reserves, which accounts for the wide area of influence of the preparations and the absence of harmful side effects when prescribed with conventional remedies.

Supplies

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Complete set of delivery:

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8. User's Guide
9. The software (CD). The complete set includes the "Metapathia" program
10. Security dongle

10) <http://www.physiospect-diagnostics.com/clinical-%20reports.htm>, Computer non-linear diagnostics, Clinical reports on the Oberon

The collection of proceedings of Institute of Practical Psychophysics
 Topical problems of NLS-diagnostic
 (theoretical and clinical)
 (Moscow 2003)
 Computer non-linear diagnostics
 V.I. Nesterov

The Non-linear Diagnostic System (NLS) has been extensively used lately and are gaining ever growing popularity. Even in the few cases, where the clinical symptoms look very typical the NLS diagnostics method provides extra information about the extent of the affection and allows to consider a prognosis. In most cases it is of vital importance for diagnostics and quently for the right choice of treatment. In 2000 it was 20 years since Theodore Van Hoven had developed the theory of quantum entropy logic that underlies this method. So non-linear diagnostics appears to be most up-to-date of all methods of the hardwarebased diagnostics. At any rate, his discovery became a significant landmark in diagnostic medicine. Non-linear analysis was originally employed in organic chemistry to determine the composition of complex compounds. Sviatoslav Pavlovich Nesterov who introduce a trigger sensor in 1988 and thus framed the concept is acceptably considered as a originator of NLS-diagnostics devices (metatron) Active work was immediately started to develop and improve the NLS-diagnostics systems. Clinical testing of the early equipment took the period from 1990 through 1995. The late 90s saw a fast growth of commercial production of the device and a sudden surge in the quality of the results produced. The non-linear diagnostics is still in its developing stage. The diagnostical techniques are improving so fast, that the system version have to be updated every six months. Due to the introduction of some of new devices equipped with digital trigger sensor, the NLS-diagnostics has become not only far more time-efficient but also quiet different in terms of quality. It is obvious that some runtime techniques, for instance tree-dimensional visualization of investigation results will soon become a daily practice. The vegetive testing is just an example of a ready implementation. The method is employed so widely that we should rather speak about a definite rang of indication for its use than just about popularization.

Research centers continue their quest for some new investigation methods based on the non-linear analysis system. So far the result appear to be quiet promising. Unlike NMR and computer tomography, the NLS-analysis does not need strong fields. The method seems to have good prospect for metabolism studies, particularly on a cellular level. The NLS-method advances along the path not only of technical innovation but also of new application. Some minor surgical operations, biopsy for one, have been long monitored using ultrasound, fluoroscopy or computer tomography. Today we have opportunity to hae biopsy monitored by NLS. By the way, many surgeons focus on using this method to assist major surgeries.

The cost of equipment for NLS-diagnostics is still very low as compared to some other hardware-based methods. This is supposed to promote more extensive use of the method in countries with low living standards. Of all methods of hardware-based diagnostics the NLS provides representations most proximate to the pathologicoanatomic picture. This feature of the method along with its harmlessness, promotes rapid development of the NLS-diagnostics.

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CLINIC TECH INC. - ascending into the XXI century
D.V. Kosholenko, S.A. Letun

The development of the new generation of non-linear computer scanners (metatrons) making use of multidimensional virtual imaging of the body of interests, had allowed to substantially improve the efficiency of the NLS-method and even expand its fields of application despite the MRT competition. The originally volumetric pattern of scanning is a distinctive feature of the multidimensional NLS imaging. The data thus acquired are an integral array, which facilitates reconstructing multidimensional virtual images of anatomical structures of the body of interest. In this connection the virtual NLS is widely used especially for angiographic investigation with the tree-dimensional reconstruction of vascular formations.

Another promising field of application of the three-dimensional image reconstruction based on the data acquired by means of multidimensional NLS is the study of hollow organs with a "virtual-NLS-scopy" involved. This kind of system was developed by Medintech Company for their high-rate multidimensional Z-series non-linear scanners, and was called Hunter. High resolution maintained during spiral scanning and the use of LAPP system (a system of parallel processor with a powerful computational capability and speed of operation) allows to implement the principal of "virtual-NLS-scopy" on a Voxel Z multimodal DICOM-compatible work station, which is the basic system for imaging and subsequent data processing with Medinatch scanners. NLS images are made ready for visual analysis by means of the 4D Tissue, an original company-developed method, that allows not only to obtain virtual multidimensional images of anatomical structures but also select of particular biological tissue of interest giving an extra dimension, and additionally visualize bones, soft tissues and vessels at a time.

A specific feature of representing virtual data by Hunter system is its simultaneous visualization of surfaces of cavatus and extramural formations located outside the lumen of the cavity under examination (e.g. lymph nodes, vessels). The acquired images from the natural sequences of virtual NLS shots, while special navigation programs automatically determine the paths of the "virtual scanner" by center of the cavity under examination. The path of the motion can be chosen by operator using some other settings, which allow to detail the NLS picture by changing the view fields. A raised representation of the cavity surface is also achievable by shaping particular artificially shaded areas. The products sentences of NLS shots can be easily converted into the standard VHS video system, in particular for teleradiology.

The hunter system is primarily designed for case detection of obstructive processes in the upper respiratory passage, bulky esophageal, gastric or colonic formation, atherosclerotic lesions of large vessels, and disorders affecting paranasal sinuses, urinary bladder or spinal canal. The data gather by "virtuall-NLS-scopy" allow to pick out the optimum spot for biopsy and define the extent of the required surgical intervention in good time.

The technique can be used both solely and as a useful linking element between topographic, endoscopy and NLS investigations.

The Medintech's latest development is a convenient tool for planning interventional procedures monitored by NLS. The Pincers comprises a controlled stereo tactic manipulator ("mar"), a flat gentry-mounted monitor, a cable system and software. The system provides the physician with the means of simulating and performing interventional procedures through an interactive link between the virtual NLS and the real operational field.

METHOD OF COMPUTER NON-LINEAR ANALYSIS AND ITS ROLE IN DIAGNOSTIC.

V.D.Artyukh, U.A Shovkoplyas, A.A Gavriov

The computer-based non-linear analysis (NLS) as a dynamic non-invasive informative method is increasingly used to examine the status of health affected by pathologies of different origin. The NLS can be applied both in vivo (to acquire an NLS-spectrum of one or another part of any organ or tissue) and in vitro (to obtain an NLS-spectrum of extracts from tissues, biological fluids or cells); while, rather often both approaches can be combined for a more accurate data interpretation. The usage of NLS at a clinic requires devices production an at least 20-30 mT eddy magnetic field. The proceedings of the latest International Congress of Medical Doctors (200 and 2001), that dealt with new methods of diagnostics give evidence of of a growing number of NLS-investigations used for the diagnostics purposes - the 2000 summit heard 16 presentation ion the subject, while in 2001 there were twice as many.

S.D. Tutin et.al. informed of the possibility to use the NLS to diagnose abscesses in the encephalon. It appears, that at an abscess in the encephalon in the NLS-spectrum, during the biochemical homeostasis evolution some signals from lactate and amino acid are detected, which disappearing the course of treatment. The NLS data in vivo correlated well with the result of abscess sample tests made by means of MRC with the high resolution in vitro. Using the NLS-method the dynamics of metabolic change in the encephalon when treating epilepsy can be traced. Some data are available, that indicate a possibility to register a decline in oxidative phosphorylation in the lower limbs muscles with constriction of the vessels caused by arteriosclerosis. In the course of treatment the muscles metabolism appears to improve. Another trend in the application of the NLS method is detection of metabolic disturbance of phosphoregic compounds at muscular atrophy related to pathology in the musculoskeletal system. some promising prospects for myocardial infraction diagnosis by means of the NLS method were describe by U.A.Shovkoplyas et. al., who studied the ATP exchange in the myocardium. At the myocardial infraction its level was proven to decrease.

The NLS-analysis method was employed to study the dynamics of change in the metabolism of lipids in the liver affected by cirrhosis. The NLS -investigation of the pancreas affected by malignant degeneration allows diagnosing tumor progression, judge of the efficiency of radiation or chemotherapy and also adjusting individual dosage schemes for inoperable patients.

Moreover, NLS is reported to be used to diagnose CNS disorder, cardiovascular disease, muscular system disorder, prostatic tumor, mammary gland tumors, and in addition to monitor radiation - and medicinal US therapies. The researches have demonstrated the diagnostic importance of NLS for arteriosclerosis, apoplexy, encephalomyelitis and vacuities. NLS allows estimating the phase of a pathology and activity of the nidus, determining a relationship between genetic characteristics, clinical symptoms and metabolic deviations in the encephalon. NLS helps to differentiate benign and malignant tumors in the

mammary gland. The studies of abnormal changes in the prostate gland by means of the NLS showed that the method allowed to identify an incipient change in the gland tissue and pick out the appropriate therapy in good time.

K.A.Kvasov et. al, presented some data about diagnosing prostate diseases (including histologically confirmed benign hypertrophy and Aden carcinoma) by combining NLS and dynamic MRT with artificial "Magnevist" contrasting. According to the derived results, this kind of combination allows to define the pattern of the prostate pathology and substantially increase the diagnostic accuracy. In the recent years special attention has been focused on a study of liver metabolism by means of NLS necessitated by a growing number of transplantation of the organs (in Europe the annual number of liver transplantation is around 200 and in the USA it is 1000) and due to this method's noninvasive evaluation of the liver function in the course of implantation. The result indicate appropriateness of using the NLS-analysis in this case since the ATP level in the liver mirrors an integrate picture of sell homeostasis. There is a close correlation between the disturbed metabolism of phosphorergic compounds and extend of liver decompensation.

Apart from diagnosing liver disorders in vivo, the NLS allows to judge on the state on the transplanted liver in vitro by acquiring spectral characteristics of the organs metazodes. This is based on a good correlation between the pathology change in the liver but also monitor the biochemical responses to treatment. Summing up the above it can be concluded that the ever growing use of NLS-analysis in different fields of clinical medicine, including its combination with MRT with contrast amplification involved, increases the efficiency and diagnostic accuracy and its indicative of a continuous progress in the field of internal organ visualization techniques based on the NLS - analysis phenomenon

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Potential of NLS method in diagnosing gastric and colonic cancers.
P.A.Svetlova, N.A Sorokina, T.G. Kuznetsova, V.I. Nesterova, L.A.Yankina, N.V. Tatisova

The non-linear diagnostics method (NLS) use in the Oberon device has been actively practiced lately as many medical institutions. The most tangible results were achieved by using the NLS method as a means of dispensary observation. In the course of its development and advancement the method the method has become a foremost tool of diagnostic and observation with respect of widespread digestive organs diseases : it allows to promptly collect detailed information about the lesion and its pattern and asses the treatment efficiency. That kind disease include gastroduodenal ulcer, chronic gastritis, and also benign and malignant gastric and colonic tumors. The specific character and working conditions of the therapeutic and clinical institutions in Russia allow extensively employ the NLS method not only for diagnosing disease with some symptoms but also for dispensary observation and what is more, practically all the patients in need of examination can be placed under observation. So physician now can cover patients with the changes that are latent and can only be verified by means of NLS. Specifically, such patients include those having precancerous disease or mucous disturbances in the upper and/or lower sections latent in a certain phases.

According to the data acquired by some medical specialists, using the devices for NLS-diagnostics, and based on annual research in thousands of cases, the frequency of detecting focal or diffuses changes, typical for chronic atrophic gastritis in patient over 50 years old, is

within 30-40%.the analysis of the spectral examination of pattern-different section of focal changes in stomach mucosa shows that different symptoms of diseases including intestinal metaplasia and epithelia dysplasia can be detected in them just as often. During the NLS analysis symptom of gastric ulces where recorded in about 5% of cases, polyps in stomach in 7%, and polyps in colons in 45% of cases. Thus, even NLS analysis result alone, without other risk factors taken into account, include the most of the patients in the respective age group appear to be among those who need dynamic observation because of potential gastric cancer (GC) or colonic cancer (CC).

According to the cancer register for 1999-2000, the values of gastric an colons cancer cases were 80.9 and 53.1 respectively per 100000 patients and the death according to the mortality statistics was 47.35 and 19.5%. According to conclusion of the therapy-diagnosis unit, with about 70% patients under active dispensary observation, the pathologies of this kind are likely to be detected as often as in 0.4-0.8% of cases. Therefore, the NLS screening would allow to detect GC or CC in about every 15th-20th examinee. Considering that emergence of clinical sings is one of the incentives for a patient to take medical advices and a reason for hardware-based examination, some clinical implication and their pattern were evaluated in the case of the above mentioned diseases. As fallow in the results,720 patient affected by CG or CC the condition appeared to be symptoms free in 42% and 32% of cases respectively or there were some sings characteristic of previous chronic digestive track diseases that was a case in 77% and 92% for the 1 phase, 56% and 68% for the 2nd phase, 23% and 32% for the 3rd phase, and 8% for the 4th phase of this diseases. The clinical implication at a gastric cancer were of a point-dyspepsia syndrome nature typical for the lesion in the upper section in digestive track. At a colonic cancer subgroups were segregated with dominating sings of intestinal hemorrhage, disturbed evacuation or abdominal pain. A certain interrelationship was proven between the pattern of the clinical implications lasted less than 3 months in 26% of patients the CC developed actually within a few days. It should be noted that so-called "minor sing syndrome" correspond to some later phases of the disease. The same was true fro lab examination data where the change became evident during phases III and IV (2).

The result for NLS0daignostics for the initial phases of gastric cancer in a series of 104 examination showed that in 72@ of cases the physicians on the assumption of the spectral similarity to the reference standard, regarded the lesion as benign and indicative of focal mucosa hyperplasia, polyp, and area of local information, wall deformation or small ulcer. The probability for detection sings of malignant changes found out in the elimination mode was under 1%. Of 134 cases of colonic cancer in phase 1 malignant adenomas were detected in 58% of patients. The rest of the patients were found to have the so-called "minor" changes of cancer, like polyps, atrophic gastritis or atrophic-hyper plastic gastritis. The endoscopic verification of GC and CC with reference to the diacrisis of phases II,III and IV of the discases completely confirmed the results of the NLS-investigation.

172 patients were found to have to have GC or CC discovered by NLS examination conducted within a less than a year interval. among them 62% of patients. Among 62% of patients had an initial phase of gastric cancer and 38% of the patients during previous observation were found to have some or other sings of chronic gastritis in the form of focal mucos hyperplasia, local inflamation or wall deformation. According to morphological investigation, the said sections were of a benign nature and cancer development therein over the last year only. In the rest of the patients the macroscopic changes corresponding to malignant affection (spectrial similarity to "gastric carcinoma" reference standard $D < 0.425$) occurred in the span

between the last examination. This preceding endoscopy detected atrophic gastritis free focal changes in the area of the development tumor. Similar NLS data were acquired for 38 patients who during a year's observation were diagnosed to have developed a tumor corresponding to phases II and III.

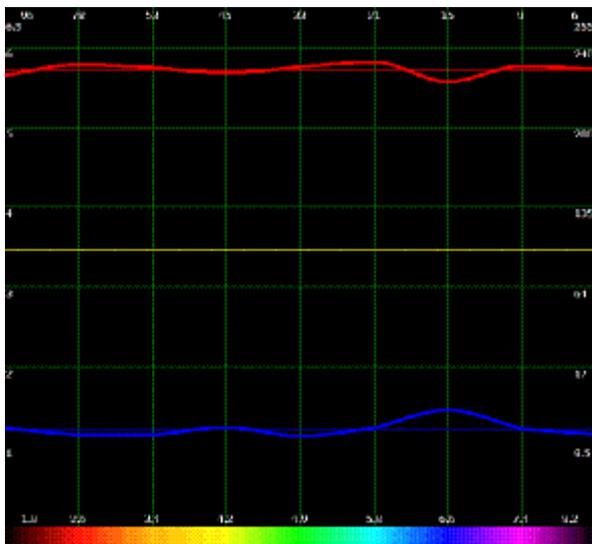
The NLS of the colon and straight intestine was performed a year before tumors were diagnosed in 21 patients affected by malignant polyps, of whom 17 had been under active observation because of polyposis, while no formation of that kind was in evidence during the initial examination. In addition, within the same time span 13 patients were examined who were diagnosed with precancerous condition (spectral similarity to straight intestine carcinoma, reference standard $D > 0.7$) an minor form of cancer. In 6 of the patients the tumor developed in area of endoscopic polypectomy after they had a large villous adenoma removed. Thus, in 34 (27%) of 121 patients, who were diagnosed to have a malignant polyp conditions in phase I or a small size tumor, colonic cancer developed within a year.

36 patients examined within the same time interval were found to have the condition in phase II and II just as frequently. 28 of them were subjected to medical regular check -ups with no clinical sings of the disease of evidence in any of them. 8 patients, within 3-7 months prior to tumor diagnosis, began to shows sings of growly anemia or progression stool retention. This dispensary observation data for these patients, with the NLS method employed a year before the cancer was developed, had indicated the tumor. There are two indicated factors known to be paramount importance for malignant disease diagnosis hey are the quality of clinical and diagnostic techniques and the specific pattern of the disease progress which actually determine the dynamic of the disease progression. Considering capabilities and working condition in the therapeutic institutions, the presented data on gastric and colonic diagnoses may to certain extent be regarded as optimum. It implies, that even if all the patients were readily diagnose with the disease during the dispensary observation (actually it is a matter of 60%), the phase I condition could been detected only in 40% of them. The analysis of causes of the late diagnosis cases suggests that such cases could prevented by improving organizational and methodical work.

Furthermore, the focus should be placed on the specific features of the diseases progress which are of great, and possibly of vital importance for tumor detection. The analysis of the available data allows to assume that tumor may develop within the short time interval reaching the size of either "minor cancer" or extensive lesion. All that confirms the idea that the tumor growth dynamics in different patients and in the different phases of the diseases id likely to very and be both continuous and discrete pattern. So a possible scenario of tumor development could be the emergence of "early" gastric cancer against the background of precancerous gastric diseases with the subsequent prolonged period of existence in the initial phase of the condition in advance. The colonic cancer development through the benign phase and then through a malignant adenoma is not the only possible scenery it can processed. Tumor can develop de novo and here too. a variant of comparatively slow or fast growth in potential. This provides an explanation for an "accidental" detection of patients with fairly large tumors during dispensary observation and a great number of patients with short clinical anamnesis and late phases of the diseases.

Thus, NLS can be considered as an adequate method for diagnosis gastric and colonic cancers. The difficulties in dealing with NLS interpretation largely concern the initial phases were the frequency of diseases detection depends in the long run on any focal changes in the mucosa in the case of chronic gastritis and on keeping the patient under dynamic observation

on the given modes of elimination and NLS analysis involved. The submitted results allow to segregate two principal variants of the diseases diagnosis. The first one suggest "accidental" tumor detection during NLS-investigation; neither clinical nor other familiar sings of disease are in evidence or their intensity ia an insufficient reason for the patient to see the doctor. The second variant occurs the patient develop clinical implications which impel physician to carry out the respective investigation for them. The result of diacrisis of gastric or colonic cancers indicate that for most patient the problem of early diagnosis can not be solved, not only because of certain organization factors but also and primarily because of the specific pattern of the disease process and its manifestation. However, the actual opportunities for improving the well-timed diseases diagnosis in practical public health conditions lie, primarily, in increasing the number of patients to be examined by means of the NLS-method within the framework of health survey and also in a timely and complete examination of the patients who are suspected to have the disease.



Malignant Tumor

New potentials of NLS-method in colonic neoplasm diagnostic.

V.I.Nesterova, T.G.Kuznetsova, V.I.Metlushko, N.L.Ogluzdina

Introduction

Colonoscopy is successfully used to diagnose colon new growths. Based on the number of indications endoscopy investigation allows to get reliable information about the colonic growth surface in order to correctly classify its pattern and take a sample for morphological identification. Yet, colonoscopy does not give an idea of the kind of internal structure the new growth has, nor does it allow to assess the depth of the invasion of the colon wall by a malignant tumor, determine its proliferation to adjacent organs or metastases to regional lymph nodes. Beside, colonoscopy does not provide information about extra intestinal new growths unless they have already permeated the intestinal wall.

The NLS-investigation of the colon using 4.9 GHz high frequency nonlinear sensor can help clear up all of these issues. The NLS-investigation allows to examine intestinal wall layers and the adrectal cellular tissue.

The research aimed to define the potential of the NLS-method in a more specific diagnostics of straight-and segmented intestine tumor.

The matter and investigation methods

In order to achieve the set goal 87 patients were examined by in whom 91 new growths were investigated by means of the NLS-method. The examinees included 41 men and 46 women age from 31 to 83 with most of them (82%) aged from 50 and over. All the patient affected by colon new growths were given one or another kind of surgical treatment depending on the pattern, size and localization of the growth. Among them in 23 cases endoscopic polypectomy was performed, in 61 cases a resection was done on different parts of the colon and in 3 patients transanal endomicrosurgery was performed. All of the NLS-investigation results were verified by a pathomorphological examination of macro preparation according to which the colonic ne growths were represented by simple tumors in 30 cases and by glandular cancers with different degrees of differentiation in 61 cases.

The stage of the malignant process were defined according to TNM classification adapted by International Anticancer Association in 1997 (the 5th revision) Phase T1 was diagnosed in 13 patients (21%), phase T2 -in 26 patients (43%), phase T3 in 17 patients (28%) and phase T4 in 5 patients (8%). According to a pathomorphological examination, metastases into regional lymph nodes were detected in 11 of 61 cases. All the patient underwent NLS-investigation and ultrasound colonoscopy to diagnose and localize new growths, define their size, growth patterns and approximate morphological characteristics, and also ultrasound scanning of the abdominal cavity and small pelvis organs to assess the condition of the organs adjacent to the colon and diagnose distant metastases. The NLS-investigation used the Oberon-4011 device equipped with a 4.9 GHz nonlinear sensor manufactured by the Institute of Practical Psychophysics (Russia) and Clinic Tech Inc. (USA). The endoscopic ultrasonography made use of the endoscopic ultrasonographic system UM-20 complete with the ultrasonic colonoscope CF-UM20 (Olympus, Japan). The echography of the abdominal cavity made use of the diagnostic unit SSD-630 (Aloka, Japan) and Logiq-700 (General Electric, USA)

Discussion of results
We know from experience that every NLS-investigation should be preceded by diagnostic colonoscopy, which evaluates anatomic characteristic of the colon and defines the number, localization and macroscopic characteristic of the new growths, and by ultrasound scanning of the abdominal cavity as well. A through transabdominal ultrasound scanning is required to assess the condition of the organs adjacent to the colon and diagnose remote metastases.

A comparison of the NLS results with those of pathomorphological investigation was made in order to define the potentials of the NLS-method in differential diagnostics of benign and malignant colonic new growths. The result of the NLS-investigation coincided with the pathomorphological investigation in 87 of 91 cases. Most of the errors occurred in diagnosing colon adenomas. In 6 of 31 cases the patient was suspected of having cancer. The analysis of the observation noted that the difficulties in diagnostics were related to the deformation of intestinal wall layers due to the pressure of a nodal villous tumor rather than to a genuine invasion. To false-negative results were obtained in the case of malignant adenoma and cancer decreases, Thus the accuracy of the NLS method in differential diagnostics of malignant and benign colon tumors amounted to 81.33% and sensitivity to 79.8%, while the specificity made 76.4%.

The method of treatment to be chosen for patients affected by colon cancer depends on the tumor process phase. A comparison was made to the pathomorphological investigation data in

61 cases in order to assess the diagnostic efficiency of the NLS-method in classifying the colonic cancer phase.

The correct definition of the phase of tumor process was possible in 68.4% of the observations. The best results were obtained in defining phases T3 and T4, where the diagnostic accuracy was 78.2% and 81.2% respectively. It should be noted that most of the errors occurred in determining phases T1 and T2, where the data of NLS and pathomorphological investigations coincided only in 54.2% and 47.4% of the observations respectively.

In diagnosing phase T1 mistakes were made in 4 cases with 3 of the errors toward overstating the phase; in once case signs of intestinal wall invasion were not found and the tumor was taken for adenoma. In the analysis of phase T2 diagnostic errors in overstated phases were noted in 7 of 9 cases; an understatement of phase of the tumor process occurred in one case and yet in one case no evidence of invasion proved to be found. The analysis of the post surgical morphological conclusions made it clear that in 6 of 7 false positive result pathomorphological investigation of macro preparation detected a deeper infiltration into the intestinal wall. However according to microscopy examination, the infiltration was on inflammatory rather than of a tumorous kind. It should also be noted that in all of the cases it had to do with an infiltrative tumorous process in the inferior ampullar section of the straight intestine free of serous membrane while the inflammatory infiltration area was located in adrectal cellular tissue. To find out the causes the present difficulties for diagnosis the efficiency of the NLS method was analyzed in function of the size, localization and form of germination of neoplasms. The best results were obtained in diagnosing new growths size under 2 cm and over 5 cm.

The epithelia tumor over 5 cm in sizes is represented by phases T3 and T4 in 12 of 17 cases. It has to be noted, that the large neoplasms the data of NLS essay did not coincide with pathomorphological data only in phase T2 where the process phase was overestimate because of the presence of the inflammatory infiltration in deeper layers, than the layers where the tumoral invasion occurred. Thus, at neoplasms larger than 5 cm in size the diagnostic of the invasion degree of the intestinal wall is feasible in 78,2% of observation. High result was also obtained at the estimation of depth of tumoral invasion by neoplasms sized up to 2 cm. most of them are represented by a tumor in phases T1 and T2. The results of ultrasonic colonoscopy have coincided with those pathomorphologic conclusions in 76.7% of the observation. It should also be noted, the tumours up to 2 cm are most convenient for examination since they have the least number of artefacts. At this essay the greatest groups were the tumours sized from 2 to 5 cm, where the result proved to be lower, than in two first groups. The NLS data and those of the pathomorphological essays coincided in 66.7% of cases. An appreciable share of mistake (60%) occurred in phase T2, where the intestinal wall invasion depth was overestimated in all observation.

The great value has the fact, according to the pathomorphologic essay, in 5 of 6 cases of hyperdiagnostics apart from the tumoral infiltration an expressed inflammation was detected in deeper layers of the intestinal wall. The relatively low accuracy of diagnosed depth of the intestinal wall invasion by tumor sized from 2 to 5 cm is due to the fact that 24 of 30 observations of this group corresponded to phases T2 and T3. The differential diagnostics of the tumoral infiltration depth in this phases is complex. At the next research stage we made comparative analysis of the effect of the form of growth

of the neoplasm for accuracy of defining the phase of the tumoral invasion in the intestinal wall. All neoplasms were classified into three groups, in function of the shape of the tumor growth: polypiform, saucer shaped and infiltrative.

The highest results were obtained when diagnostic the phases of the saucer-shaped growth cancer process where the accuracy of the defining the tumoral invasion in the intestinal wall was 78.3%.

It seems however impossible to fully estimate the accuracy of the NLS method in defining the depth of a tumoral invasion at neoplasms with saucershaped growth because of its small occurrence among other forms in patients surveyed by us. The polypiform of the growth was noted in 30 neoplasms. The growths had a distinct interface with unaltered sections of the intestinal wall and did not block the intestine lumen by more than half, which created favorable conditions for the survey. The accuracy of NLS method in defining the depth of tumoral invasion in the intestine wall was as high as 65%. It has to be noted, that half if all cases divergent with the pathomorphologic conclusions is due to the overestimate depth of tumoral infiltration at defining the phase T2, which is connected with the presence of perifocal inflammation.

This fact suggest difficulties in defining the phase of cancer process in cases where the tumoral invasion is compounded by the inflammatory component penetrating deeper layers of the intestinal wall and beyond its limits. The neoplasms with infiltrative growth shape have proved to be most difficulty in defining the degree of the tumoral invasion in to the intestinal wall. In this group the result of NLS-method and those of the pathomorphologic essays coincided only in 49.8% of observations. It was due to the fact that these neoplasms, as a rule, had a large size and occupied more than a half of the intestine wall circle.

In the next investigation phase was estimated the accuracy of the NLS method in defining the degree of the intestinal wall invasion depending on the tumor location in the colon. In 40 cases the tumor was localized in the rectum and in 21 cases in the segmented intestine. The accuracy of diagnosing the phase of the tumoral process in the colonic intestine is significantly height that at finding the tumoral invasion depth with the neoplasms located in the rectum and amounts to 71 and 62.5% respectively. This high result can be most likely explained by the fact, that this department of colon contains a serious membrane, which distinctly separates the muscular layer from the abenteric organs and tissues. Also is noted that the serous membrane of the intestine is less subjected to penetration of the inflammatory infiltration, than the pararectal cellular tissue. The majority of mistake falls on the cases overestimated depth of the invasion at defining Phase T2.

These researches have noted that accuracy of diagnosing the phase of a tumoral process was higher in colonic intestine than in rectum. The greatest number of abscesses, inflammatory infiltration or radial therapy in the neoplasm area. Damage regional lymph glands are an important prognostic factors in diagnosing rectum cancer. To define the capabilities of the method in diagnosing metastases in regional lymph glands, the results of the NLS method were damage with those of the pathomorphologic essay. In the letter the malignant damage to the regional lymph glands was detected in 11 observation from 22 cases.

The analysis of the derived data proved that the NLS essay had correctly defined the pattern of damage to the lymph glands in 63.6% of cases.

The metastatic pattern of damage to the lymph nodes was defined in 74.8% of cases, and an inflammatory changes the results of ultrasonic colonoscopy and those of the pathomorphologic essay coincided only in 45,5% of observation. In 6 from 11 of cases the presence of metastasizes in lymph nodes was assumed (false-positive result). Such mistake s can be attributed to oncologic vigilance of the researcher and complexity of differential diagnostic of inflammatory and metastatically -altered lymph glands

Conclusion

- 1 NLS diagnostics is a highly efficient method of diagnosing the neoplasm of the colon, allowing to diagnose neoplasms and regional lymph glands.
- 2 The NLS method allows to detect the colon adenoma and cancer by presence or absence of the tumoral invasion in the intestinal wall.
- 3 The diagnostic efficiency of NLS method in defining the phase of tumoral process in the rectum is lower then in segmented intestine.
- 4 The diagnostical accuracy of the cancer phase in colon depends as much on the size as on the anatomic shape of the tumor growth. The best results were obtained at defining depth of invasion of the intestinal walls be a tumor sized under 2 cm and cover 5 cm.

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NLS-method in vascular pathology diagnosis
S.M. Patrushev
A.D. Sluzky, V.M. Vagulin

Today the world faces a constant trend of a growing rate of morality caused by occlusive vascular diseases, especially by cerebrovascular disorders which are in the third place among death causes. On the one hand the trend is caused by a growing number of elderly and aged patients. On the other many men even already at 45 have atherosclerotic damage of main head arteries =, causing the need for a dispensary observation.

The most simple and at the same time informative method of noninvasive diagnosis of occlusive damage of peripheral vessels appeared to be the NLS-method with has been used in clinical practice not long since. The first NLS devices equipped with analog trigger sensors, operating in 1.4 GHz frequency mode and used in clinical practice since the late 90-s have not their importance yet. They can determine the condition of certain sections of the main vessels in the lower limbs and that of the brachiocephalic vessels. Not only can the condition of the vessels but also of the valvular system of deep venis can be studied. 102 patients were examined in 1997-1998 to detect valvular insufficiency of deep venis affected by varicosis. The patients were from 21 to 67 years old. The examined patients included 25 men (24.5%) and 77 women (74.5%). The study was carried out by means of the Oberon devices using a 1.4GHz analog trigger sensor. In 32 patients a valvular insufficiency of the femoral vein was detected, in 44 patients failure of both femoral and popliteal venis. NLS allows s to asses the condition of the valvular system of deep venis in low limbs on a noninvasive and objective basis which is very important point for the surgery tactic to be selected, and can be used an alternative to phlebography analysis.

The NLS-signal spectral analysis method has no counterindications and in terms of informational content is comparable angiography. It cn be used to perform screening in the course of polyclinical examination with the view to detect early or latent forms of vascular pathology and also as a preliminary method of selecting patient for angiosurgical treatment,

since according to some angiologists, angiography should only be performed on candidates for surgery pick up after a preliminary NLS investigation. However the method does not allow to asses bulk index of the bloodstream, because NLS does not allow to provide vessel's image and hence to measure the vessels diameter. This kind of information can be acquired with the help of Doppler system with 2D-imaging, that offer duplex and triplex scanning (the so-called Doppler chromatic charting).

The NLS-method was developed in the mid 90-s played an essential role in in vascular pathology diagnosis. The main advantage of the NLS-method was that differentiate vessels from nonvascular structures, arteries from venis and very accurately detect sings of disturbed vascular permeability caused by stenosis or occlusion of the vessel lumen by an atherosclerotic patch or thrombus which are generally not visible on screening in B-mode alone.

In addition the NLS-method allows to diagnose portal hypertension, the extant of its intensity, and permeability of Porto systemic bypasses. NLS is very sensitive in defining the extend of peripancreatic vessel involvement with pancreas cancer which is essentially important for choosing the approach for surgical treatment. NLS allows to detected the damage renal vessels (both veins and arteries), which is very important for the correct choice of a hypotensive drug at arterial hypertension. Some efficient hypertensive drugs, i.e. inhibitors of angiotensin-converting enzyme (ACE) such as capoten, enalapril, berliptil, cet., became very popular lately, but they have counter-indications at renal artery stenision. So physicians should bear in mind that checking for stension is a must before prescribing this kind of medicine. NLS-method is likely to be the choice method in such cases.

The NLS-method is indispensable fro differential diagnostics of benign and malignant hepatic diseases. Its sensitivity is comparable with the potential of conventional or digital angiography and computer assisted amplified tomography. In addition, the NLS-method is much cheaper, simpler and more intelligible. In can be employed directly at the patient's bedside if required. The NLS-method can be used in ophthalmology to check ocular hemodynamics before or after surgical intervention, in obstetrics to detect the disturbed blood current in umbilical cord arteries with a view to diagnose a retarded fetus development and predict a negative perinatal produce.

Yet another potential of NLS method lies in cranial scanning which allows to detect intracranial hematomas, aneurisms, cysts and tumors in the encephalon. These are far from potential of the NLS method. **Summing up, the NLS-method is one of the most dynamic techniques and within the next few years it is bound to bring some new discoveries.**

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NLS-diagnostic of lung abscess
S.N. Makarova

A screening NLS-investigation detected two cases of lung abscess in feverish patients who were complaining of pain in the right hypochondriac region. The patient were subjected in order to preclude an abdominal cavity pathology. The NLS examination was conducted by means of "Oberon-4009" device equipped with

digital trigger sensor. (1,4GHz).

Patient N., age 57, was admitted to therapeutic department. He was complaining of a week-long fever with the temperature of up to 40°C, a moderate non-productive cough and pain in the right hypochondriac region as a result of catching a cold. He came to see the doctor ten days after falling ill. The anamnesis read a bilateral pneumonia 14 days before. The clinical blood analysis indicated an increased leukocyte content- up to 18.7×10^9 with a flush left leucogram. The common urinalysis showed no deviation. Physical examination vesicular pulmonary respiration, weakened in lower section on the right with no rhonchi. Tongue dry, with furred. Belly soft, with frank painfulness in the right hypochondriac region. No symptoms of peritoneum irritation in evidence. Pasternatski symptom negative on the right and left.

The NLS-investigation on the abdominal cavity did not detect any signs of pathology in the liver, gallbladder or pancreas. On the right there are visualized blackening in the diaphragmatic pleura (4-5 points according to Flander's scale) and an image of voluminous formation in the right lung was acquired (5-6 points). On the dorsal thoracic wall there was an image of an enhanced chromogenic formation (6 points) of a heterogeneous internal structure, sized 80x65x54 mm. The lung tissue around the nidus had a higher chromogenic density (4-5 points) on account of infiltration. A spectral similarity to the "lung abscess" reference standard ($D=0.312$) was detected. The investigation of the left lung and pleural cavities did not detect any structural changes. NLS conclusion: certain signs of developing abscess in the right lung.

The check radiological investigation arrived at the conclusion: abscess in the lower lobe of the right lung in progress. A repeated NLS examination was conducted 10 days later. It visualized a rounded hypochromogenic formation with uneven outlines with some hypochromogenic zones inside, sized 81x60x51 mm.

The chromogenic density of the lung tissue around the nidus was somewhat higher (due to infiltration), and the folia of the visceral and parietal pleuras were blackened in the lower section of the right lung. The patient was offered the further therapy in the specialized surgical department, which he turned down. 3 weeks later, after some anti-inflammatory therapy a check NLS examination was performed. During the examination the patient complained of coughing with a profuse sputum discharge. His temperature was normal, the clinical blood analysis indicated a leucocyte count of 8.6×10^9 , and the differential blood count was within the standard and ESR grew up to 37 mm/h. The NLS-investigation visualized rounded formation with even outlines, increased chromogenic density and heterogeneous internal structure sized 47x43. The chromogenic density of the lung tissue around the perimeter decreased (because of reduced infiltration).

At the patient's urgent appeal he was discharged from hospital from further outpatient treatments. Later he underwent two check examinations conducted.

Patient M. age 63, was eliminated by means of the NLS method in order to preclude a liver or gall bladder pathology. An NLS-investigation of the lung and pleural cavities was carried out. In the left lung and pleural cavities it found no signs of pathology in evidence. In the right lung in the IX, X AND XI hypochondria (from the paravertebral line to the scapular one) it parietally visualized a formation having an increased chromogenic density and sized 85x60 mm uneven outlines and heterogeneous structures (due to inclusions of a decreased chromogenic density) sized 3-4

mm. the chromogenic density of the lung tissue was not increased. NLS conclusion: sing o abscess in the right lung?
Clinical conclusion: abscess in the lower lobe of the right lung.

The patient had check NLS-investigation conducted against background of anti-inflammatory therapy.

With the NLS-investigation performed 10 day later the formation looked rounded, had even outlines, and increased chromogenic density (3-4 points) because of infiltration. The formation measured 73x50x60 mm.

The NLS-investigation 2 weeks later did not detected any positive dynamies from the administered anti-inflammatory therapy.

The submitted the clinical observations once again confirmed the NLS-investigation with lung diseases is not used in clinical practice as often as it deserves. Beside, the dynamic NLS-observation of the patient affected by lung diseases allow to assess the efficiency of the employed therapy and reduce the radiation load both on patient and the medical personnel

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NLS-diagnostics of the degenerative changes in the spine. A.G. Brusova, P.A. Manokhin, T.K. Puznovskaya, T.A. Shyshkovetes.

Computer Nonlinear Diagnnostics (NLS) is a new highly informative method provided to examine the spine and the spinal morrow. The NLS advantages are noninvasiveness, scalability of the image field, a capability to obtain section of any orientation and virtual imagining of reticular canals and paravertebral zone. Undoubtedly the use of NLS in diagnostic of degenerative spine diseases has apparent prospects. Subject and methods

The investigation was conducted by means of "Oberon 4009" metatron equipped with a 1.5 GHz digital trigger sensor. 1217 patient affected by degenerative changes in the lumbar region of the spine was investigated. The NLS of the spine and spinal marrow was performed for all patients, 112 patient had NLS and CT and myleography was performed for 10 patients. Analysis of result

In 87% of cases in the examinee group we found disks affectes by degenerative changes. The elierst degenerative change in intervertebral disks (ID) was a hyoerchromous lesion (6p point on Flandler's scale) in zone between the pulpous nucleus and the fibrous annulus. Alonge with the degenerative changes NLS has detected an increased chromogenic density of the spinal from the bone marrow in the adjacent regions of the vertebral bodies (4-5 points according to Floander's scale). 3 degrees of the degenerative changes could be distinguished depending on the process intensity.

Degree1, a hyperchromous zone apprised at 4-5 on Flandler's scale, was detected in 90 patients. Conventional radiograph did not display any changes. Formation of fibrovascular tissue followed by its penetration into the bone marrow is believed to underline the changes. Some author relate these changes ro the lack of stability in the segment.

The histogram displayed a spectral similarity to the reference standard "intervertebral osteochondrosis" (D 0.396 to 0.425)

Degree 2, a hyperchromous response in the affected zone at 5-6 points in Flandler's scale was detected in 215 patients. Conventional radiograph did no showed any changes. According to

some literary evidence, in this phase the histology detects a substitution of the fat bone marrow for the red bone marrow often accompanied by enlarged trabeculae. This phase generally precedes an osteochondrosis development which can be diagnosed a little while later by conventional radiographs.

The spectral similarity to the references standard "intervertebral osteochondrosis" was frank (D0.246 to 0.360) Degree3, a frank hyperchromous response (6 points), which corresponds to a far advance vertebral body sclerosis, was detected in 312 patients. Some secondary symptoms, like local bulging and vertebral osteophytes, were detected with a far advance degenerative lesion of the disk and substantial similarity to the references standard "osteochondrosis" (D from 0.152 to 0.218). NLS allowed to differentiate between a protrusion and prolapse of the disk and existence of rupture of the fibrotic ring and condition of longitudinal and other ligaments.

A protrusion is defined as a bulging of disk tissue beyond the posterior out line of the vertebral body into the spinal canal. The fibrotic ring tissue endures through becomes very thin and NLS only reveals zone of slight destructive changes in the structure (3-4 points). With compression it gives an actually frank hyperchromous response(6 points). Protrusion may be accompanied by slight caudal shift which is quiet often defined by means of the NLS-method at L5-S1 intervertebral disk level. NLS detected protrusion in 729 patients.

The rupture of the fibrotic ring fibers result in the prolapsed of the pulpous nucleus on a subligamentary level and the ligaments rupture results in the prolapsed inside the cerebrospinal canal. As can be seen from NLS, the longitudinal ligaments look well delimited and are represented as hyperchromous band-like structures (5-6 points) which adjoin the bones and fibrotic ring. The extraligamentary prolapsed can shift either in a caudal or cranial direction. The extraligamentary prolapses of the disk that lost contact with the host disk become sequestrers. Occasionally, we observe some very small extraligamentary sequestrers which shifted far into the cerebrospinal canal, which made it hard to detect them.

The NLS investigation detected prolapsed in 445 patients. In 685 of cases the hernias of intervertebral disk was combined with other degenerative dystrophic spinal changes on this level. The hernia of the intervertebral disk was detected at L4 -5 level in 83% and L3-4 level in 2% of cases. A lesion of several disk was found in 50 patients. 196 underwent surgery, among the 114 had lateral hernias, 76 patients had median lateral hernia and 6 had median hernia. 5 patient had surgery for hernia recurrence. The NLS diagnosed extraligamentary sequestrated hernia in 38 patients and intradural hernia was diagnosed in 3 patients. Multiple sequestrers were detected in 5 patients. The clinical symptomatology for the prolapsed of intervertebral disk was variable and did not always depend on their size. In some case we observed median protrusions which did not result in any clinical implication. The clinical symptomatology for small sequestrated hernia was no less than for large sequestrers. In evaluating the NLS data not only the size of hernia but also the reserve area of the cerebrospinal canal and their preposition should be taken in to account.

With a suspected hernia the NLS-investigation should be performed at least in two planes, sagittal and paraxial, i.e., parallel to the disk plane, and the sagittal investigation in T1w-SE can be combined with others sequences. The median prolapses of intervertebral disks in sagittal shots could be seen quiet clearly. The

signal content of the hernia predominantly corresponded to the NLS signal content of the pulpous nucleus. The external part of the fibrotic ring, posterior longitudinal ligament and the dura matter give a frank hyperchromous response and did not differentiate from one another. Thus,, the NLS method sometimes fails to present a direct proof of a rupture in the external and axial projections.

Sagittal shots have an advantage in deciding on the disk prolapsed, the size of intervertebral foramina and the condition of the cerebrospinal canal and bones. These shots are not significant for detecting an intradural process with the cone especially poorly invisible in them. Frontal shots have drawbacks in determining the condition of the pulpous nucleus and fibrotic ring. To that and paraxial virtual models are used, for they allow to differentiate the process between the fibrotic ring rupture and protrusion free of the rupture. Thanks to virtual dimensional scaling sagittal shots allow to delimit the subarachnoid space.

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NLS-diagnostics of diffuse infiltrative lung diseases
V.I.Nesterova, T.G.Kuznetsova, N.L.Ogluzdina

Among different kinds of lungs disorders special attention has been paid over the last years to diffuse infiltrative lung diseases (DILD), which is largely accounted or by some problems in their timely diagnostics and treatments. Most diffuse lung diseases involved in the pathological process both the interstitial tissue and the respiratory tract and alveola. In this connection this type of pathological processes should be defined rather diffuse infiltrative than as interstitial diseases. Despite of the polymorphism of clinicomorphological manifestation of DILD, most of them star off with productive alveolitis (in contrast to the exudative alveolitis in the case of pneumonia) with fairly stereotyped changes in the lung interstice in the form of inflammatory infiltration with different degrees of intensity. Subsequently fibrosis develops that can have differen rates of progression. A "cellular lung" pattern is the final phase of development. It should be noted, that some infection diseases of certain etiology (like tuberculosis, histoplasmosia, etc.) and particular malignant tumors (lymphogenous, carcinomatosis, brioncholoalveolar cancer) do not directly belong to interstitial lund diseases but are similar to them in terms of manifestation.

The clinical evaluation of patients which are suspected DILD is a complex problem. Nonspecific symptoms and in some cases sing detected during chest examination may be characteristic of a multitude acute or chronic diseases that involve interstitial tissue, respiratory tract or alveola. DILD are represented by extremely heterogeneous group of diseases. The DLIDs have been describe in over than a hundred possible versions , however in clinical practice only about 10 or 15 condition are the most common and it should be noted that sarcoidosis and various cases of lung fibrosis occur in clinical practice in 35-50% of all DILDs. Besides, acute diffuse lung processes in patients with reduced immunity (also in combination with HIV-infection) are likely to have a great number of infectious and non-infectious varieties, which X-ray evaluation is forum to be difficult.

Unfortunately, the capabilities of conventional peonthenography for patient with a suspected DILD appear to be limited for the sensitivity and specificity of the method prove to be insufficient. The data on 458 patients with a histological confirmed DILD were studied. The chest radiographs for 10% of the cases turned out to be normal. Among 86 patients affected

by DILD no pathological change was detected in 50% of the patients with histologically proven bronchiectasia and over 20% of the patients with emphysema shown on X-ray shot. Radiography may equally show false positive results of the investigation. We have discovered that 10-20% of the patients with the x-ray-confirmed signs of DILD no changes were detected during the lung biopsy.

The computer nonlinear diagnostics (NLS) is one of the promising methods of diagnosing lung disease of today. NLS appreciably improves the communication of the fine morphological elements in the lungs tissue and opens up new opportunity for recognizing interstitial diseases of the bronchovascular system. NLS has a high sensitivity in detecting fine interstitial lesions of the parenchyma and small nodules.

The result of investigations prove that NLS has a better sensitivity in detecting both acute and chronic diffuse lung diseases. The sensitivity of NLS diagnosis in detecting lung disease make 85% as compared to 79% in chest radiography. The accumulated experience too, give additional grounds to assert that NLS is a highly efficient method for diagnosing a wide range of various diffuse lung diseases, DILD included, and excels the classic: chest radiography by sensitivity. It should be noted that the high sensitivity of the NLS-method is achieved without sacrificing the specific and diagnostic accuracy of the method. In patients affected by DILD the NLS specificity amounted to 86% as opposed to 76% in radiography. In particular, the high sensitivity (87.08%) and specificity (83-89%) of NLS were demonstrated in bronchiectasia diagnostic.

Although, NLS is a more sensitive method as compared to the chest radiography, its sensitivity in lung diseases diagnostic is not absolute and the fact that no radiological changes were detected by NLS may lead to precluding lung disease in patients who actually suffer from DILD. 100 patients were examined by means of the NLS with 86 of them affected by DILD and 14 having no pathological changes in the lungs. Despite the high value of NLS sensitivity and specificity, for 4% of the patients with biopsy-detected lung disease the result were interpreted as being normal. On other hand, the NLS was proven to high-accuracy technique for precluding acute lung disease in patients with immunodeficiency. Some examination data were studied for patients with a bone marrow transplant and clinical symptoms of fever of obscure genesis. The authors demonstrated high reliability of the NLS in determining fungal infection in 20 of 24 cases. Beside, the fact that no changes were detected during NLS lung examination allows to assume that the fever was caused by bacterial or fungal infection of extra pulmonary genesis. It is also a proven fact that the sensitivity with NLS is higher than with standard computer tomography. We examined 150 patients. Using conventional CT (10 mm collimation) and NLS we found that NLS had higher sensitivity in recognizing pathology changes in the lung tissue.

Due to its high sensitivity, NLS should be used to define lung diseases in patients with a normal or obscure aspect of disease who have a pulmonary disturbance or symptoms that suggest acute or chronic diffuse lung disease. Even with certain clinical signs in evidence the diagnostic accuracy of classic radiography in patients affected by DILD appears to be limited. The reason is both superposition of the image in the radiograph and low contrast of minute lung structure. NLS is free of these aspects, which is why it is reputed to be a more efficiency method for recognizing lesions of lung tissue as compared to both radiographic survey and conventional computer tomography.

Beside having a higher sensitivity, specificity and diagnostic accuracy, the NLS method can become a determining factor in evaluating the activity of a pathological process in patient affected by DILD. In certain cases NLS can be used not only to define the presence of a pathological process or the extent to which it has spread, but also to collect information about the reversibility of changes (in acute or active phase) as compared to irreversible (fibrotic) changes in the lung tissue. Moreover, since NLS can accurately identify the imponderable activity of a pathological process in the lungs, it can be employed to evaluate the efficiency of the treatment given to the patients. The conventional methods for evaluating disease activity, such as transbronchial lung biopsy (TBLB), bronchoalveolar lavage (BAL), chest radiography, gallium lung scanning and functional lung tests are insufficiently reliable in evaluating the activity and in terms of prognostication. So the open lung biopsy (OLB) is still the choice method for both diagnosing and evaluating the process activity. We were able to prove, that signs detected in patients by means of NLS can provide some valuable information and be significantly important in defining the activity of a pathological process.

In terms of this prognostic value NLS is advancing to the foreground leaving behind functional lung tests, BAL and even OLB, because it allows to assess a lesion of actually the whole lung parenchyma as compared to a separate biopsy sample. Moreover, NLS can become an accurate noninvasive method for evaluating the efficiency of the administered treatment.

Sarcoidosis is one of the most common interstitial lung disease of unknown etiology. In typical cases granulomas are formed in fine lymph vessels or beside them, afterwards the granulomas self organize which causes lung tissue fibrosis. A number of researches considered the NLS potential in defining the process activity in patients affected by sarcoidosis. The main activity indicator is the presence of small nodules and to lesser degree their distribution and occurrence in the lung tissue. Unfortunately, despite the difference between reversible and irreversible changes detected by NLS for patients having sarcoidosis, the potential of NLS in assessing the process activity have not been studied well enough.

Among differential indications in favor of NLS application, the use of this method in lung biopsy is probably the most important one. Biopsy is very essential diagnostic technique which allows to define the nosology of lung disease, its activity level and phase. The diagnostic value of biopsy to a certain degree depends on its method and the type of DILD. The authors proved that TBLB was diagnostically informative for only 20 patients of 53 (38%) who had DILD in evidence; in 33 such patients (62%) TBLB displayed normal lung tissue or nonspecific changes.

At the same time OLB made a specific diagnosis of DILD in 92% of cases. In DILD-affected patients TBLB proved to be most informative for patients having sarcoidosis or lymphogenous carcinomatosis, because these lesions have largely peribronchovascular tissue involved and are therefore most accessible to TBLB. Diagnostically OLB appears to be more accurate, but it also has certain complexities because lung tissue is sampled from a small sector of the lung which might not reflect the changes occurring in the rest of the lung tissue. Many diffuse diseases affect lung tissue irregularly so the pathologically altered parts of the lung may contain both active manifestations of the disease and fibrotic changes of long standing. For any accurate diagnosis and assessment of the clinical progress of the disease the right choice of a biopsy sample is very important. During biopsy NLS helps to collect more

accurate data indicating active areas of a pathological process. By using NLS, the areas affected by lung fibrosis in its final phase, with honeycomb lung formed, could be skipped during biopsy sampling. In addition, NLS may prove to be vitally important for choosing the most effective technique (TBL, BAL, OLB) for making a histological diagnosis. Conclusion. Radiography still remains the most/accessible method for diagnosing DILD yet its informational content appears to be not sufficient.

Making correct diagnosis necessitates a combination of laboratory, functional and radiological investigations as well as some invasive methods, each of them having its own substantial limitations.

NLS-diagnostics is the method that greatly improves identification of diffuse infiltrative lung disease and as such it should become a part and parcel of an integrated investigation.

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NLS-DIAGNOSTICS OF PROSTATE DISEASES
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An ever growing number of physicians enjoy an opportunity of screening NLS diagnosis of prostate gland and urinary bladder. This article attempts to consider some particular of morphological changes occurring in a prostate affected by pathology, based on the results of NLS-investigations.

In the West prostate cancer makes 20% of the total cancer diseases and ranks second to lung tumors as a depth cause. According to some autopsy findings with a histological investigation of the prostate, 12-47% of men aged over 50 appeared to have cancerous foci. Clinically, cancer is diagnosed more rarely because a high percentage of that number corresponds to "minor forms" of cancer that have low invasiveness, so the patients suffering from it die of another kind of pathology. To enhance the quality of prostate disease diagnostics it is important to comprehend specifics of topographic and zonal anatomy of particular organ

The prostate gland is located in a small pelvis between the bladder and anterior abdominal wall, anterior rectum wall and secondary urogenital diaphragm. The gland has a chestnut shape and tightly envelops the bladder cervix and prostatic urethra. The gland base is tightly connected with the bladder into a coherent mass. Its anterior surface is directed to the symphysis, and the posterior one - to the rectum ampulla. The posterior surface of the gland has an expressed sulcus, which allows to conventionally subdivide the gland into the left and right lobes. Besides, there is a protruding middle cone-shaped lobe confined anteriorly by the prostatic urethra and by the spermatic ducts posteriorly. According to zonal anatomy theory usually 4 glandular zones are distinguished in the prostate. The correct interpretation of NLS data largely depends on the knowledge of their topical pattern. 20% of the glandular tissue corresponds to the central zone (CZ). The peripheral zone (PZ) occupies 75%. The intermediate (transitory) zones (TZ) make up 5% of the total amount of the glandular tissue.

Periurethral glands (PUG) take a relatively small amount of the tissue however exactly this area of the gland is very important for explaining changes at a benign hyperplasia. Apart from the glandular area, 4 fibro muscular zones can be disconnected:

- 1) Anterior fibro muscular stoma (AFS).
 - 2) Unstriated muscular fibers of the urethra (UMFU)
 - 3) Preprostatic sphincter (PPS), which is an extension of the musculature of the inferior part of the ureter and prevents inverse emission of semifluid
 - 4) Postprostatic sphincter (PPS), which is responsible for retain urine in the bladder and blocks incontinent micturition
- The gland can be conventionally subdivided into 2 parts:
 -external part consisting of CZ, PZ, TZ and
 -internal part comprising AFS, PPS and PoPS.

According to NLS-investigation, the external part looks like a structure of normal chromogenic density(2-4 points on Flandler's scale), and internal one is hypochromogenic (1-2 points). The two parts are divided fibro muscular layer, the so called surgical capsule, along which an incise made during surgical intervention, and calcium salts deposit (calcium imitation of the gland).in the NLS investigation those formations can be seen as fairly hypochromogenic structures (3-4 points) of different size. The analysis of the prostatic gland image on th NLS virtual moc mae according to the following quantity characteristics:

- 1 size: front to back - 2-2.5 cm, across - 3-4.5 cm, from top to bottom - 2.5-4 cm;
- 2 volume: up to 29 cm;
- 3 symmetry. The urethra is the reference point.

If any pathological changes are detected in the NLS-graph it is recognized to:
 -specify their extra location
 - perform histogram of the pathological area and area of the tumor with a normal structure. It will be helpful for the case fallow-ups. At the begging hyperplasia allows to detect the direction of the principal germination. In case of hypertrophic transitory zones the gland proliferates inwards. Though darkened lateral zones are formed (405 points on Flandler's scale), the nodes can still always visualized. The trans-rectal NLS offers the most detailed and automatic information.

Enlarged lateral lobes squeeze PZ and CZ causing their atrophy. With proliferation of the paraurethral zones a massive fibro muscular PPS layer restricts of their hyporplasis, so with this kind of pathology the gland proliferates along the urethra forming a middle darkened zones pushing back the bladder wall. Visrtual scanning makes this pathology clearly visible in longitudinal sections. At the beginning of the proliferation a relationship between the internal and external glandular parts id disturbed. Apart from some distinctions in the zone of principal proliferation, the clinical sings will be different as wee. In the case where a globe-shaped gland is formed (TZ proliferation) the gland is chiefly hyperchromogenic and the dysuric manifestations are minimal while with a "middle zone" formed the gland is slightly darkened and dysuria appears to be frank. Sphincter decompensation leads to the development of urinary incontinence and dilation of the upper urinary track fallowed by the atrophy of the cortical layer of kidneys, which gradually adds to frequent urination, nycturia, reduced pressure of the urine or slowed-down urination occurring in the initial phase of the disease.

In case of squeezed cervix of the bladder an NLS-graph allows to visualized sings of an infravesical obstruction, that causes some morphological and functional changes in the lower and upper urinary tracks. Specifically. In the initial phases of benign hyperplasia a darkened wall in the bladder can be observed. Dark patches result from compensatory hyprthropy of the detrusor.

These 3 phases of benign hyperplasia of the prostate can be distinguished depending on the

intensity of the changes:

1. Hyperchromogenic density of the gland with no residual urine;
2. Residual urine present;
3. All of the above-mentioned plus dilatation of the upper urinary tract with the cortical layer of kidneys involved in the process.

Diagnosis of the acute prostatitis is made in the basis of histograms (similarity to the reference standard process "prostatitis" $D < 0.425$). Diagnostication should be done in combination with dactylar rectal examination (painfulness during palpation) with clinic lab data taken into account.

In this case of abscessed lesion a still higher hyperchromous area (6 points) is visible against the general dark patch (4-5 point according to Flandler's scale). Areas of frank blackening correspond to necrotic changes. When an abscess in progress one can notice a reduced infiltration of the tissue around the cavity with the dark patch gradually lighter in the course of dynamic observation (up to 3-4 points). With adequate therapy employed the postinflammatory cyst may fall into regression. As can be seen from NLS-investigation, chronic prostatitis does not give a common characteristic picture, however the morphological processes in different phases of the disease are reflected in histograms. With a long-lasting disease the chromogenetic density tends to rise due to a postinflammatory substitutions mode destructing of the fibrous component starts to predominate.

With an oncological pathology analysis of the gland picture helps locate the process in different projections and assess the extent of prevalence and involvement of adjacent organs. The minimum size of tumor determinate by means of NLS-investigation is about 8-10 mm. 80% of the tumorous nodes are represented by markedly hyperchromogenic structures (6 points on Flandler's scale) Analysis of histogram of the nidus helps differentiate an oncoprocess. The method's sensitivity becomes higher with both 'elimination' and NLS-analysis' modes in use. Peripheral zone shape first place as far as cancer incidence rate is concerned. Their shape make 70-80% of cases. In transitional zones (TZ) are affected in 10-20% and CZ in less than 5% of cases. In transitional zones a tumorous nidus should be looked for within 3-4mm from the capsule. In case of any oncological alertness the symmetry in the lobe affection is assessed w.r.t the sagittal axis and intensity of the black patch (4-5 point on Flandler's scale) in the adjacent organs, especially seminal vesicles and bladder because in 25% of cases metastasizing occurs through the gland apex and seminiferous tracks. Considering the fact that cancer often develops with some diffuse changes occurring on the background, for example, with chronic prostatic or adenomatosis, it is not always possible to visualize newly formed cancerous areas. In such cases the result of PSA level definition and digital rectal examination should be considered. The PSA level is defined considering the patient's age and gland volume.

Conclusions:

1. NLS-method allows to diagnose most prostate disease and being a screening diagnostic method, it should be supplemented by biopsy, should any pathological changes be detected.
2. The final diagnostic should be made on the basis of the clinical lab data and the result of digital rectal examination in combination with biopsy only.

