



CENTRE OF INFORMATION
TECHNOLOGIES “NELIAN”

**Methodical recommendation for estimation of test results
with the help of the hardware-software complex DIANEL
11-S, DIANEL 22-S iON and of the program DIANEL
PRO**

(Appendix to the User’s Guide)



Model 11S



Model 22S-iON

**Moscow
2009**

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Chapter 1. Diseases of upper air passages

Respiratory infection

If the program has revealed the signs of respiratory infection with a significant factor (up 0,6 and lower) in a patient, it is necessary to compare the virtual picture of diseases (see figure 1) with clinical manifestations of the revealed illness and with the data of physical examination. So, for example, in case of an infection diseases of upper air passages on the ground of more or less expressed catarrhal occurrences can be noted being unwell, subfibrillity, weakness, a moderate disposition to sweat. To the occurrences indicated above the cough can join; it appears on the 2-nd or the 3-rd day of the illness and is dry for the first time and becomes productive later.

The beginning of the illness can be caused by overcooling, by contact with ill persons, being in public places with lots of people. During the physical examination a moderate humidity of skin integument, hyperemia of back wall of the throat can be revealed; in any cases visualized enlarged follicles can be detected, rhinitis phenomena can occur. In case of enhanced temperature a moderate tachycardia can be detected. In the acute respiratory diseases no pronounced changes in the blood and urine probe can be registered.

If the clinical picture of diseases and the results of physical examination of the tested patient conform to the virtual model, obtained in result of the test, the physician can confidently send the conclusion offered by the program to epicrisis to be registered as the most probable one. To confirm the correctness of the conclusion, the polarity of markers can be used; the markers are put on the virtual model of the nasopharynx of the tested patient; the markers corresponding to an expressed degree of functional or organic changes in the tissues of upper air passages, as shown in figure 1 (blue markers with the polarity 5), are placed on the back wall of the throat. As confirmation of clinical and of virtual picture can serve the results of the option "Microorganisms and helminthes" (fig.3) and "ENT-Analyses"(fig.4).

If the signs of diseases revealed in result of the test and showed in the figures do not correspond to the clinical picture and to the results of physical examination, we can suppose, that the obtained results illustrate the illness the patient has had recently or any time ago or testify to initial, pre-clinical stage of its development. In that case the physician may not send the offered conclusion to the epicrisis; he can send it with corresponding comments, after having printed them out.

Figure 1.

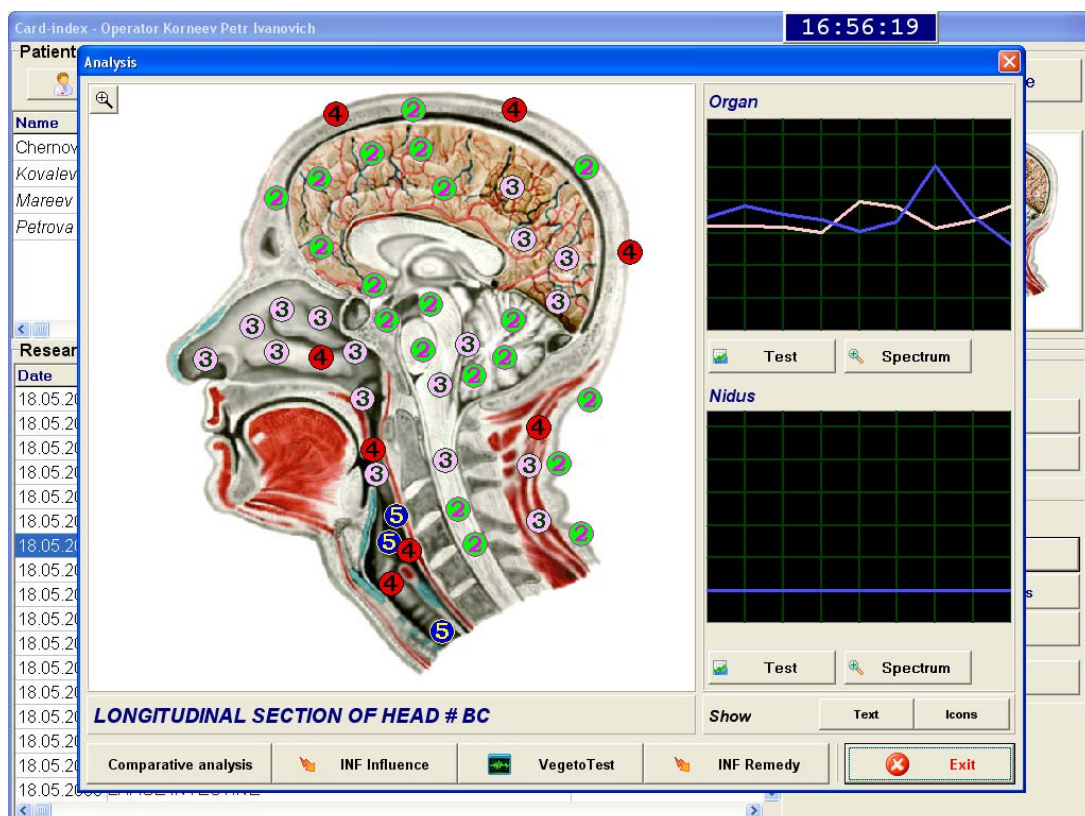


Figure 2.

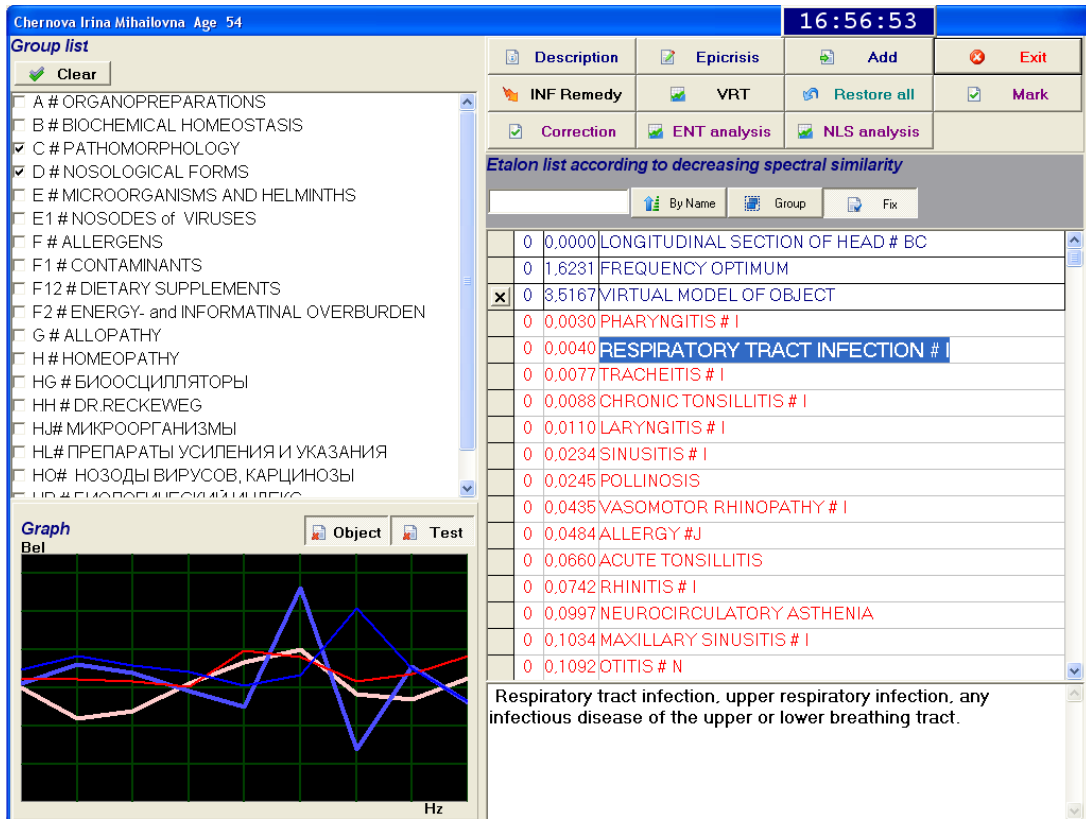


Figure 3.

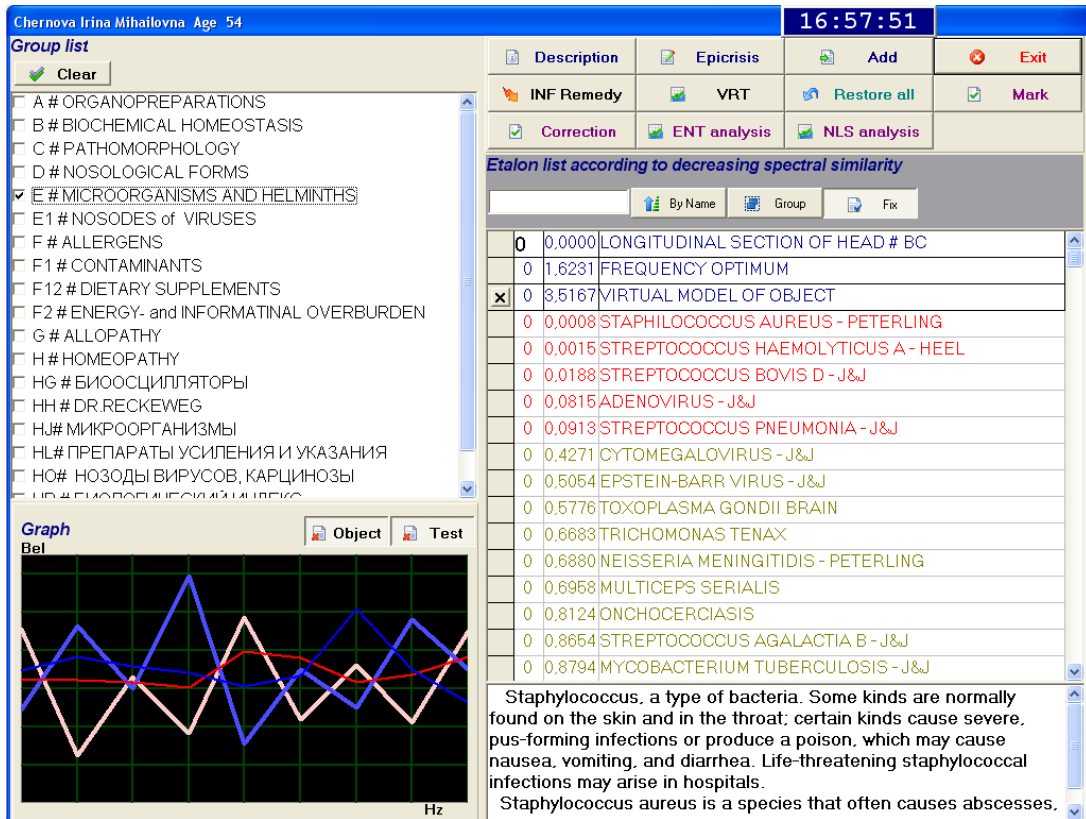
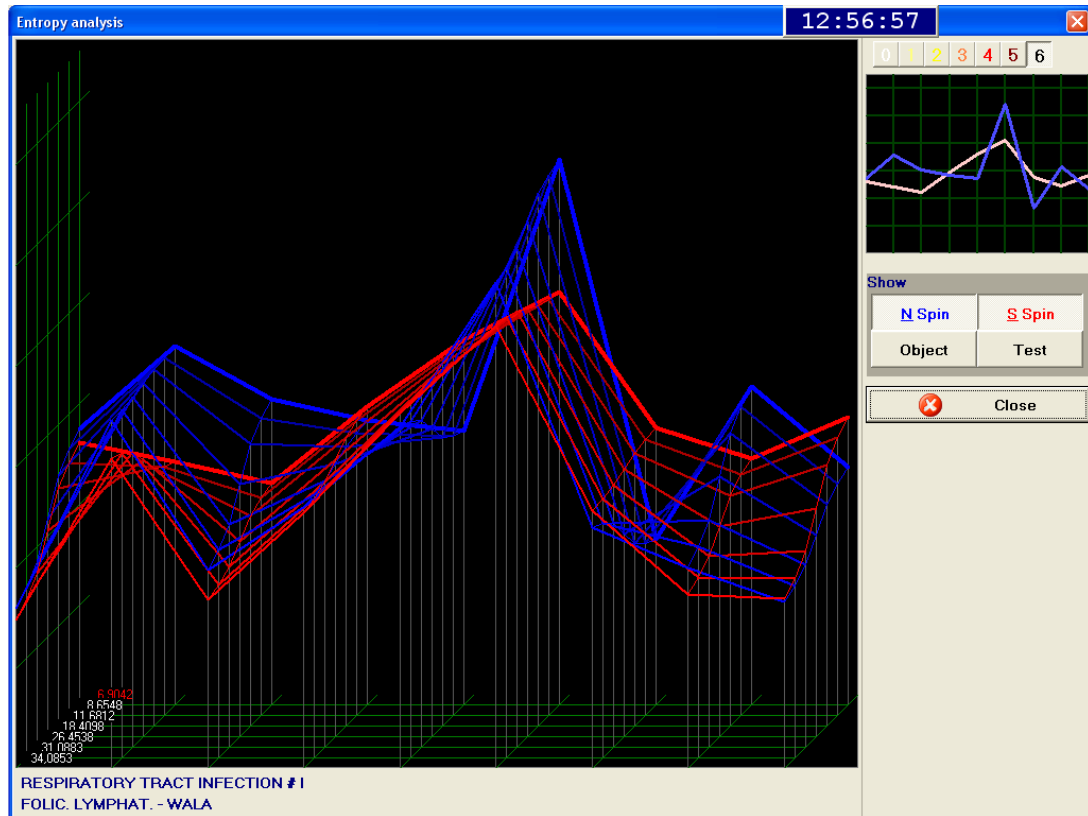


Figure 4.



After the estimation of the condition of nasopharynx (its cartogram is shown in figure 5) the program has offered some versions of conclusions with authentic enough coefficients (fig.5) such as “respiratory infection”, “pharyngitis”, “chronic tonsillitis” and others. Thus in the area of nose cavity, of throat and of larynx the markers with the polarity “3” are placed; they correspond to the not pronounced pathological changes. Therefore, the physician has to choose this or that diagnosis from the offered list depending on the result of physical examination.

The absence of pronounced symptoms of disease in its acute stage combined with a visual picture of cartogram allows to suppose that the chosen disease has its sub-acute stage; or it can mean that the disease has its early, pre-clinical stage.

Figure 5.

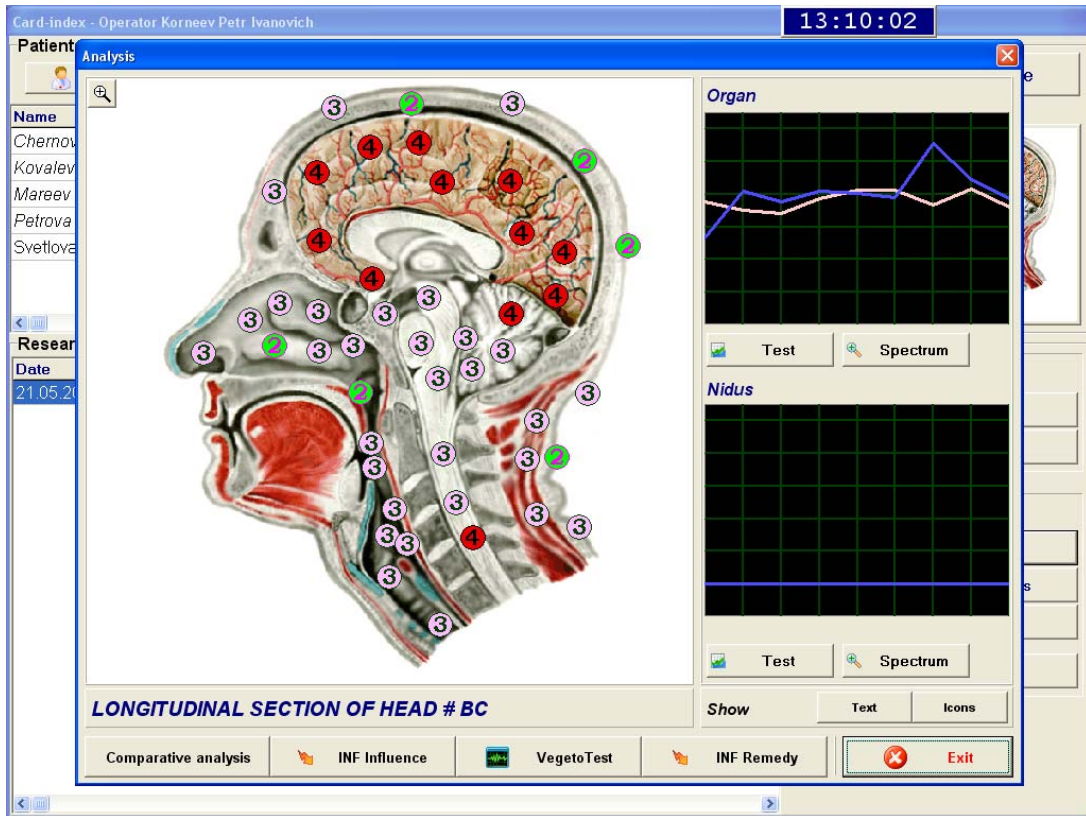


Figure 6.

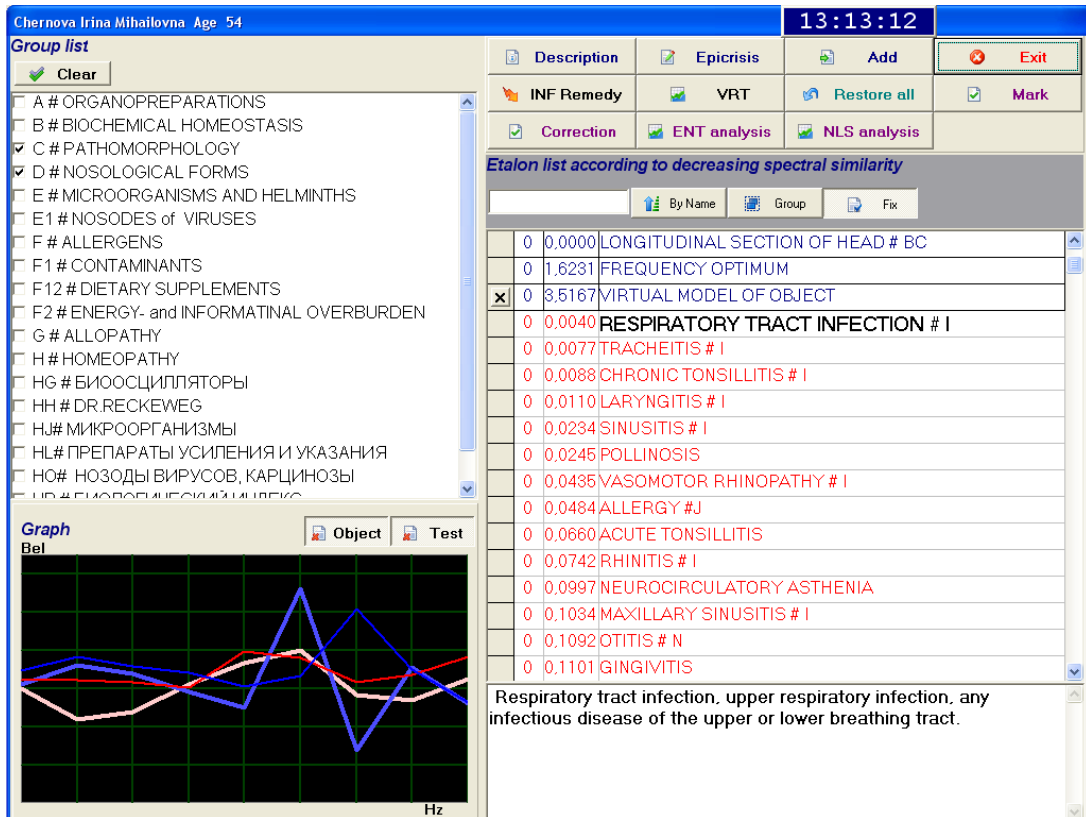


Figure 7.

Petrova Olga Ivanovna Age 54 13:17:33

Group list

Clear

- A # ORGANOPREPARATIONS
- B # BIOCHEMICAL HOMEOSTASIS
- C # PATHOMORPHOLOGY
- D # NOSOLOGICAL FORMS
- E # MICROORGANISMS AND HELMINTHS
- E1 # NOSODES of VIRUSES
- F # ALLERGENS
- F1 # CONTAMINANTS
- F12 # DIETARY SUPPLEMENTS
- F2 # ENERGY- and INFORMATINAL OVERBURDEN
- G # ALLOPATHY
- H # HOMEOPATHY
- HG # БИООСЦИЛЛЯТОРЫ
- HH # DR. RECKEWEG
- HJ# МИКРООРГАНИЗМЫ
- HL# ПРЕПАРАТЫ УСИЛЕНИЯ И УКАЗАНИЯ
- HO# НОЗОДЫ ВИРУСОВ, КАРЦИНОЗЫ
- HU# БИОСОВЕЩАТЕЛЬНЫЕ ЦЕПКИ

Graph

Object Test

Etalon list according to decreasing spectral similarity

By Name Group Fix

0	0.0000	LONGITUDINAL SECTION OF HEAD # BC
0	1.9950	FREQUENCY OPTIMUM
x	0	3.9208 VIRTUAL MODEL OF OBJECT
0	0.0046	STAPHYLOCOCCUS AUREUS - PETERLING
0	0.0095	STREPTOCOCCUS HAEMOLYTICUS A - HEEL
0	0.0227	STREPTOCOCCUS BOVIS D - J&J
0	0.1400	STREPTOCOCCUS PNEUMONIA - J&J
0	0.4293	ADENOVIRUS - J&J
0	0.5231	MULTICEPS SERIALIS
0	0.5956	TRICHOMONAS TENAX
0	0.6041	CYTOMEGALOVIRUS - J&J
0	0.6078	EPSTEIN-BARR VIRUS - J&J
0	0.6150	TOXOPLASMA GONDII BRAIN
0	0.8018	NEISSERIA MENINGITIDIS - PETERLING
0	0.8082	STREPTOCOCCUS AGALACTIA B - J&J
0	0.8638	MYCOBACTERIUM TUBERCULOSIS - J&J
0	0.8919	ONCHOCERCIASIS

Staphylococcus, a type of bacteria. Some kinds are normally found on the skin and in the throat; certain kinds cause severe, pus-forming infections or produce a poison, which may cause nausea, vomiting, and diarrhea. Life-threatening staphylococcal infections may arise in hospitals. Staphylococcus aureus is a species that often causes abscesses.

Figure 8.

Entropy analysis 13:19:41

0 1 2 3 4 5 6

Show

N Spin S Spin

Object Test

Close

0.3341
0.3983
0.5030
0.7138
0.9462
1.0774
1.1622

PHARYNGITIS #1
LARYNX - WALA

Chapter 2. Alimentary canal diseases

When examining the example of test result on the illustration offered below, we can note that a lot of diagnoses offered in fig.10 correspond to the virtual picture of stomach disease (Fig.9). In the given example, the diseases of alimentary canal offered in the list practically have an equally high degree of probability. As during the examination of stomach a primary concentration of “pathological” markers has been detected in the area of pyloric part with transfer to duodenum, we have to choose from the offered list the diseases bearing the relation to indicated organs and structures. That means, it can be one or several diagnoses from the group with the factor lower than 0,6 (if we will consider a concrete example), except of the diagnoses “gastroenteritis”, because the small intestine is not shown in the given cartogram. To choose the diagnoses corresponding to the reality, a differential analysis should be done with using not only of software but of the data of physical examination, too; that all should be done on the ground of clinical manifestation of the disease.

So, as a clinical manifestation of gastritis can be regarded, in a standard understanding, moderate pains in epigastria arising mainly just after having meals and fading in due course or after having taken antacids and on the contrary, the stomach ulcer is characterized by expressed pains on an empty stomach mainly arising in the morning. As to the verification of diagnoses, there is an indubitable fact, that besides of the confirming by the option “Entropy analyses” each of the considered diagnoses must be confirmed by the data of common clinical examination methods, by the fibrogastroscopy, in particular.” If there are no data of FGDS, the doctor can conduct a physical examination with using of epigastric area palpation to reveal a pain syndrome and recommend an additional examination, using the option “Examination” in the section “Epicrisis”.

Figure 9.

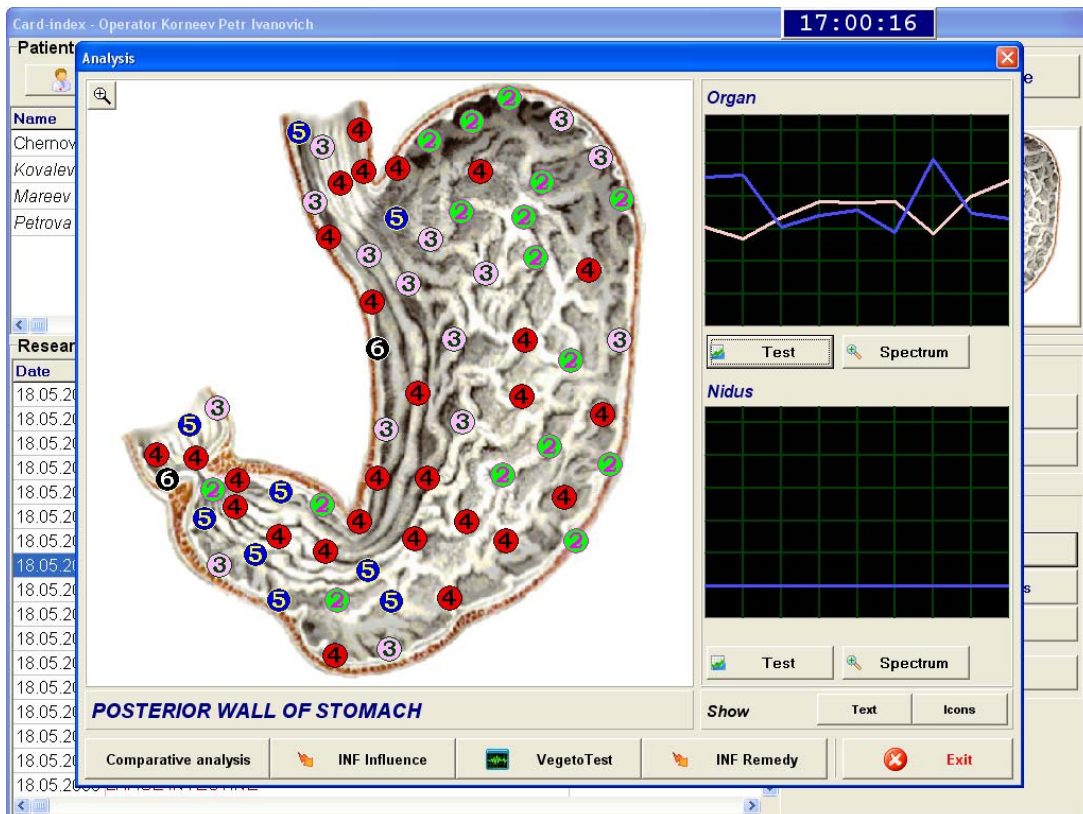


Figure 10.

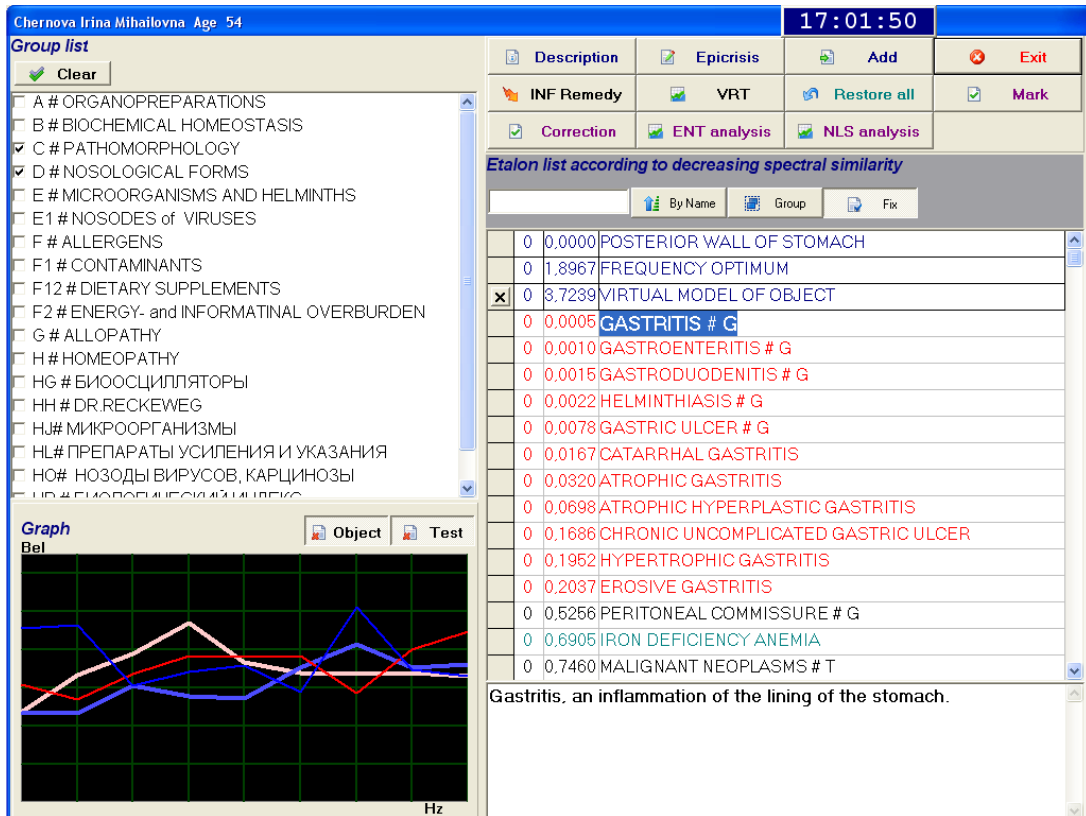
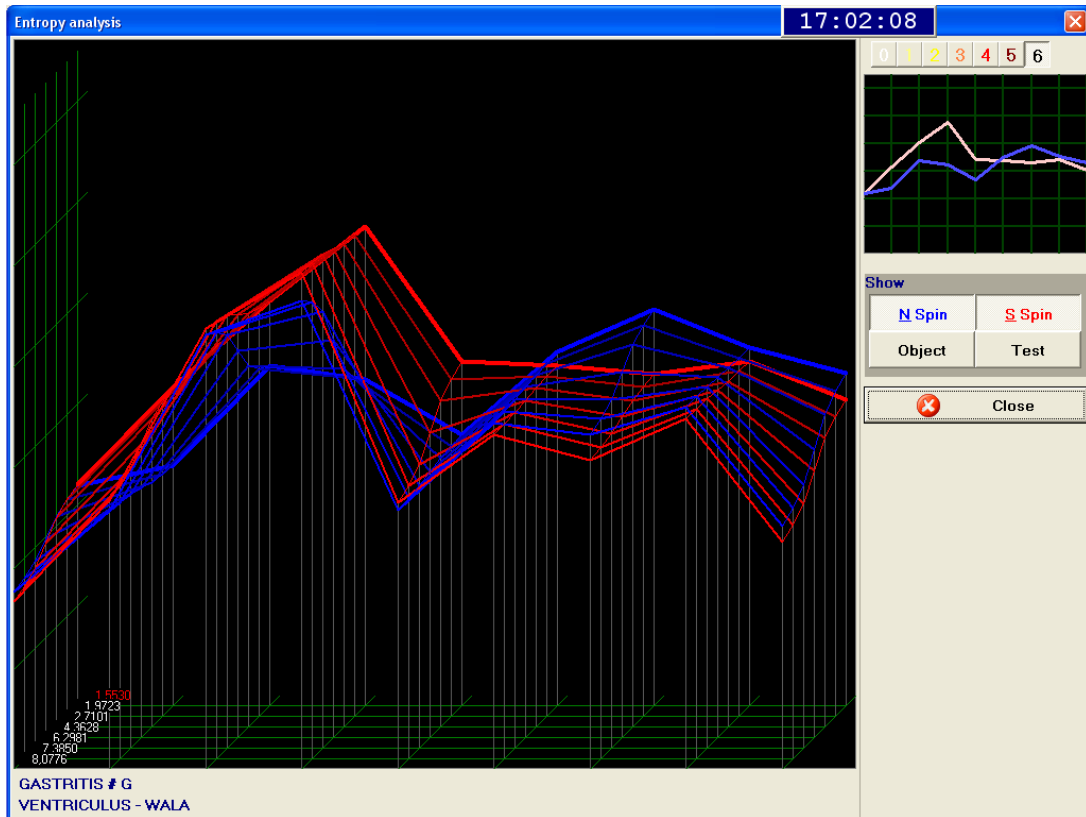


Figure 11.



On the cartogram shown in figure 12, we can see distinctly, that the markers corresponding to pathological changes "4", are situated in the area of pancreas head. The revealed condition is confirmed by entropy analysis (fig. 14). In the given situation, taking into account the diagnosis "pancreatitis" offered by the program (fig. 13), it is necessary to find out the anamnesis of disease and to carry out a

physical examination. There are following typical reasons of pancreatitis disease, which are noted in the anamnesis: not keeping the diet, misusing of alcohol, eating of spicy food and the food which had been thermal processed roughly. The pancreatitis disease can be acute and have its subclinical course. In case of the acute form of disease, on the background of provoking factors (not keeping the diet, stress, infectious disease) acute pains in the area of epigastria can appear; the pains have a surrounding character, vomiting, enhanced temperature, fever can appear, too. The acute pancreatitis demands an urgent medical treatment in a hospital. If the treatment was not successful enough, the process will have its chronic form; for the chronic process are typical: periodically arising pains in epigastria on the background of provoking factors, painful palpation in that area, periodically or constantly disturbed stool with inclination to diarrheas, changes in blood formula, disproteinemy, enhanced activity of ferments, of alkali phosphatase in particular. If the clinical picture of the given patient coincides with the diagnosis the program has offered, the selected diagnosis should be sent to the epicrisis with taking into account the polarity and localization of pathological markers on the cartogram. The gastroduodenitis and dyskinesia of bile excreting ways are, as a rule, accompanying diseases. If the clinical picture and the diagnosis offered by the program do not coincide completely, an additional examination with using of common clinical methods should be recommended.

Figure 12.

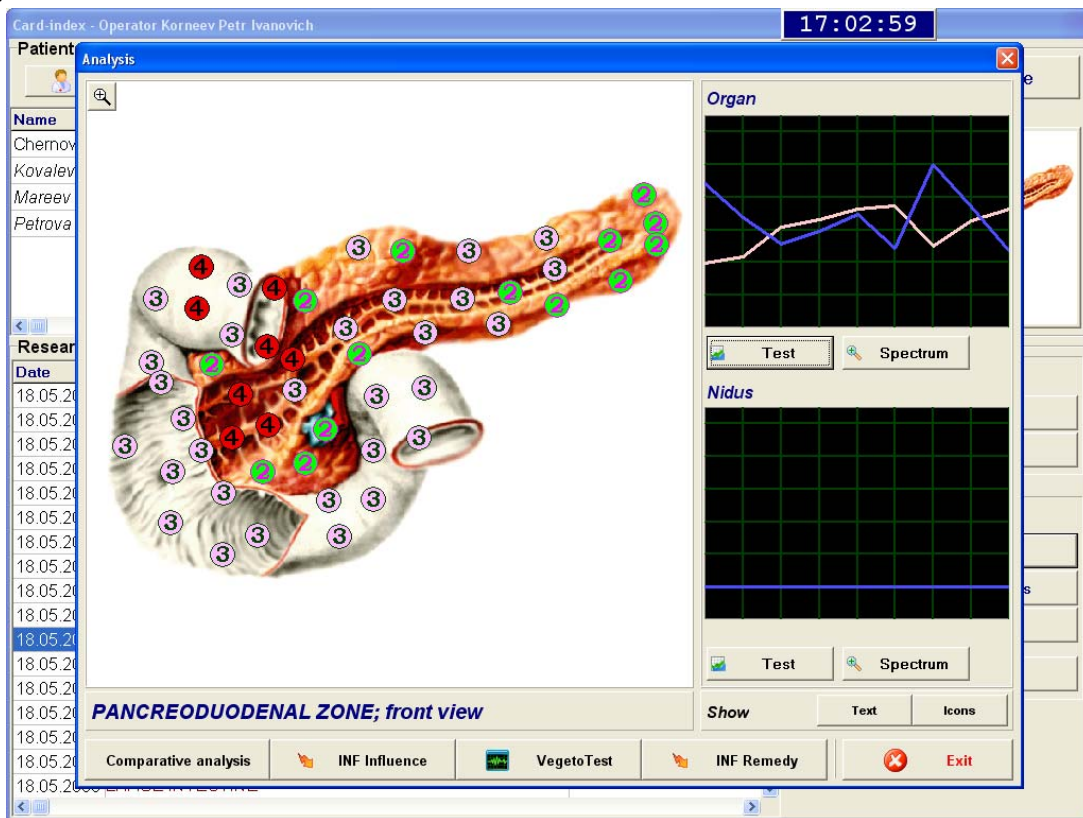


Figure 13.

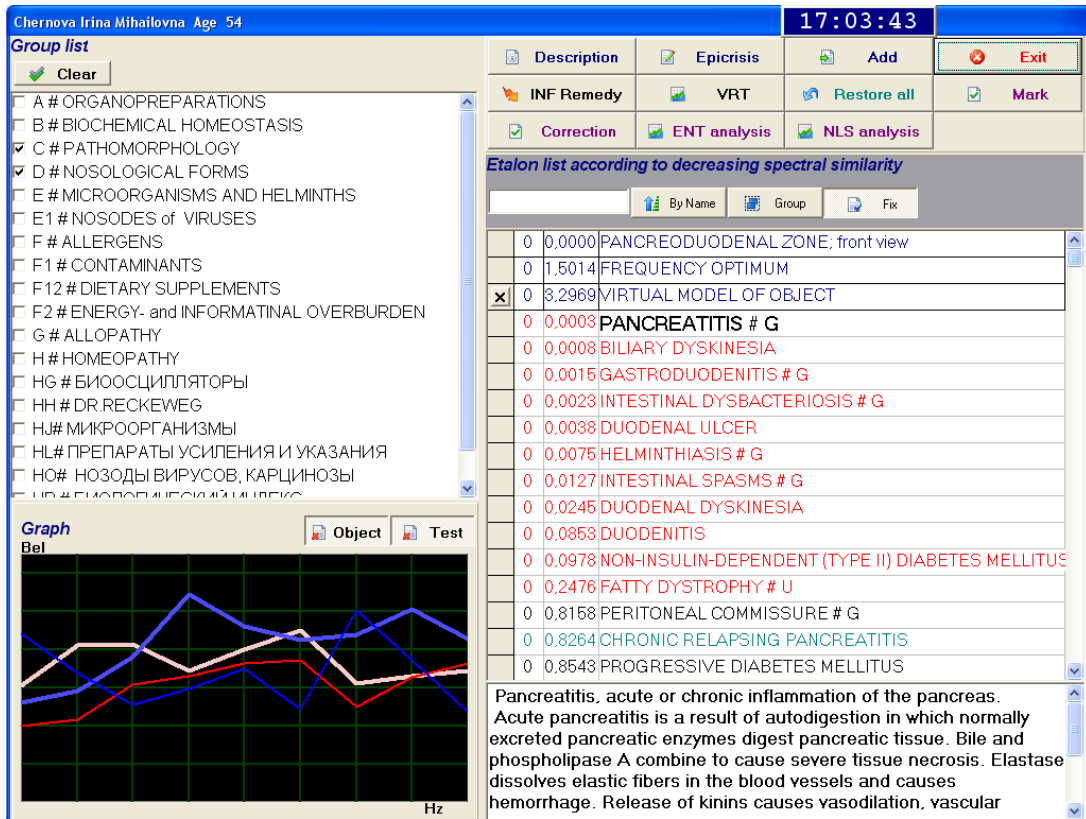
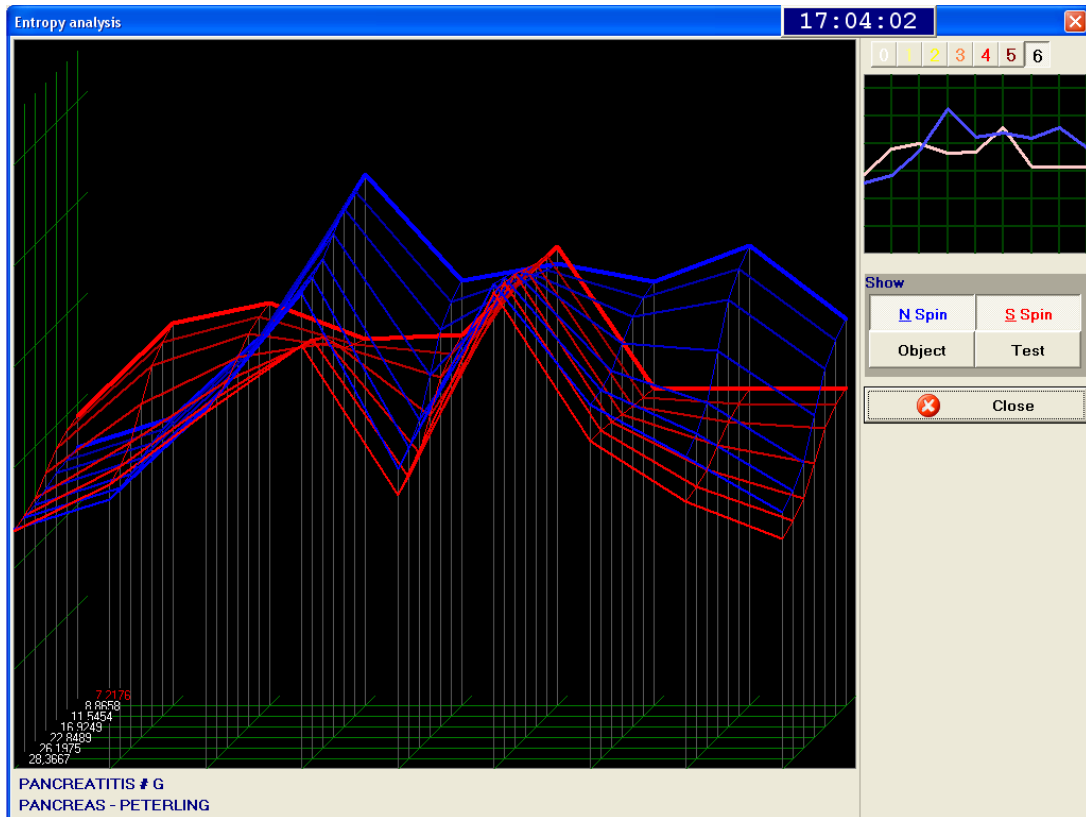


Figure 14.



Chapter 3. Diseases of lower parts of respiratory system

On the cartogram showed below (fig. 15) we can notice, that the pathology markers are primary situated in the lower part of the left lung (the markers with the polarity 5). The conclusion “bronchopneumonia” (its 0,0343 coefficient testifies a sufficient probability), in the given example corresponds to the virtual picture of the disease completely and is confirmed by the results of entropy analysis (fig.17). As confirmation of the offered diagnosis can serve the data of physical examination, such as percutic deadening in the field of the lower part of the lung; auscultatively, on the background of a hard breathing can be heard humid crepitation, in the lower part mainly. For bronchopneumonia is also typical the changes in the blood formula with more or less manifested leucocytosis of more than $9 \cdot 10^9$, with SOE (erythrocyte sedimentation rate) acceleration of more than 15-20 mm/h; in the acute phase of the diseases are noted: a manifested hyperthermia, weakness, disposition to sweat, appearing of cough, first dry, then productive, raising of heart rate, breath rate. The radiological examination shows dark patch in the lower part of the right lung. In the sub-acute phase of the disease or if the process has become chronic, the above-mentioned changes are manifested not so much.

If the virtual picture of disease and the accompanying conclusion do not correspond to the clinical picture, we can assume following cases: the disease has its initial, pre-clinical stage; the disease has become chronic and was actual long ago; the pathology is not very serious, it can be a “respiratory infection”

Figure15.

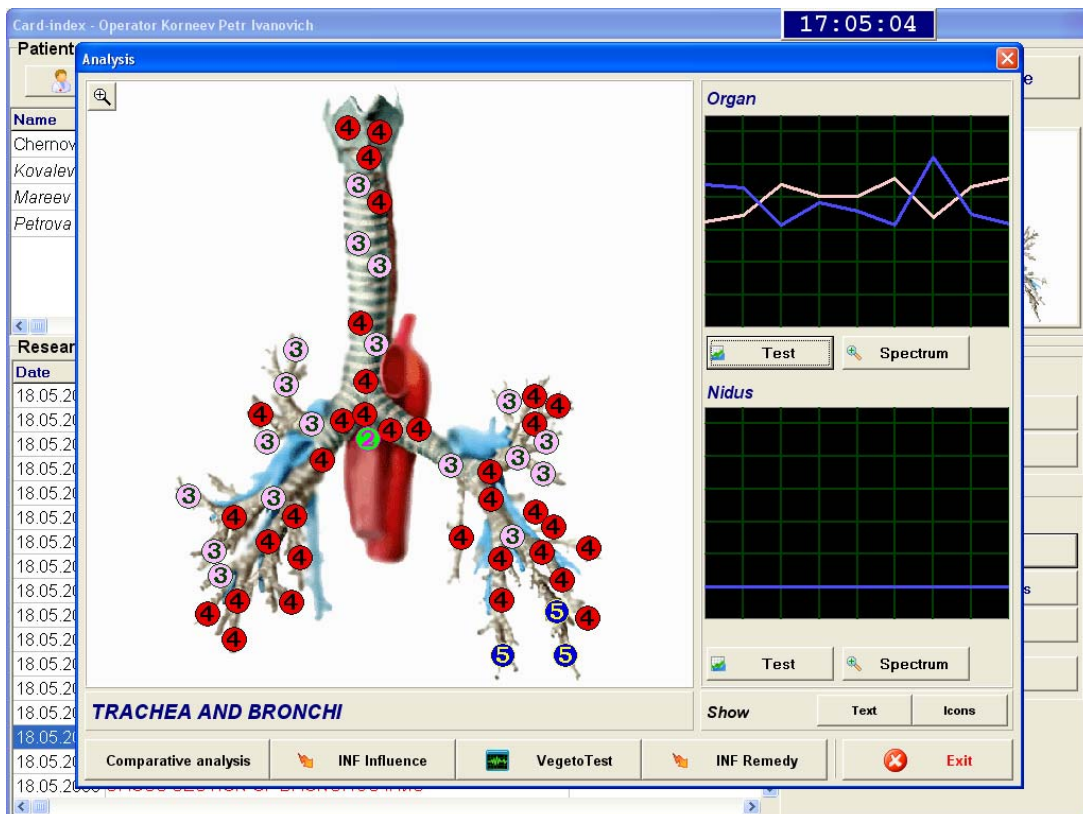


Figure 16

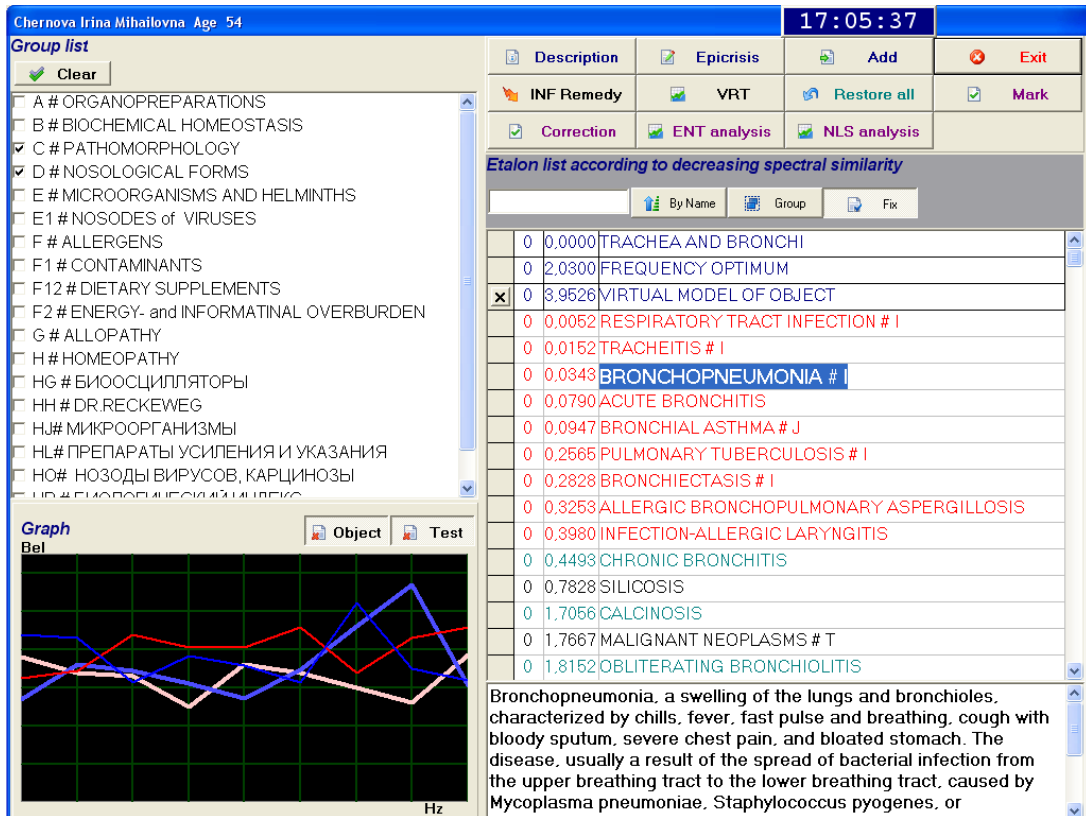
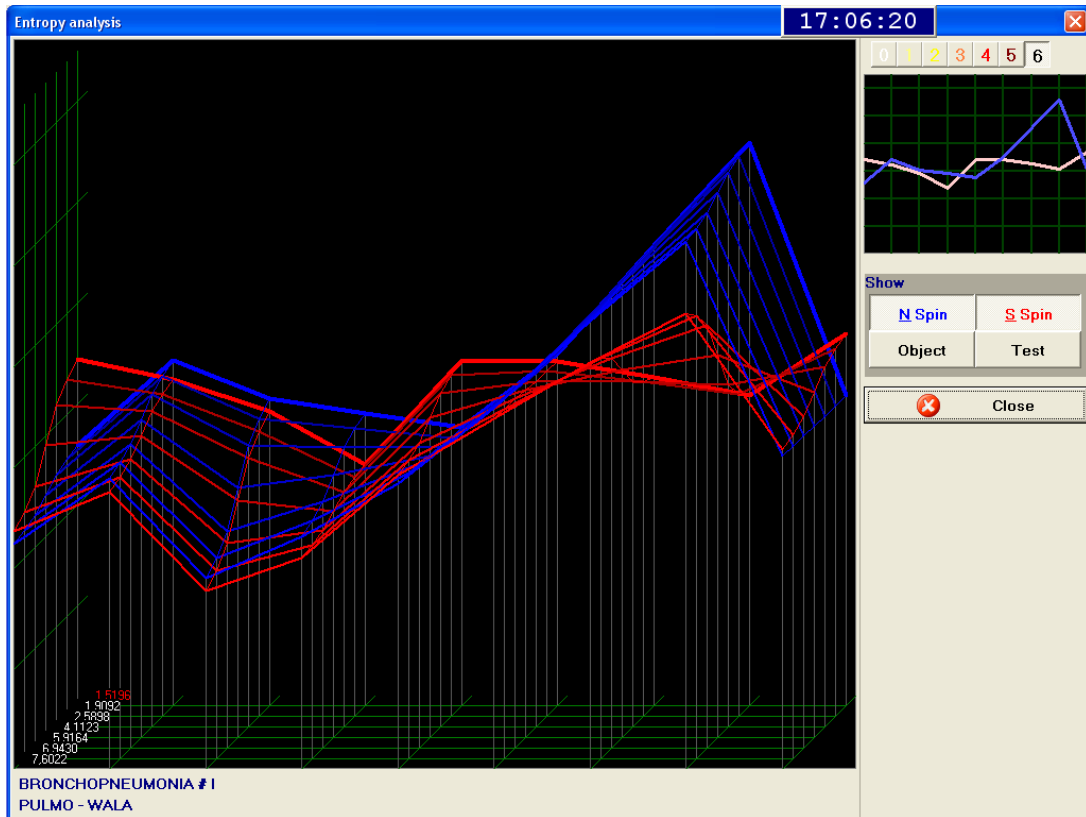


Figure 17.



In the next example the diagnosis “pleurisy”, the program has offered (fig.19), is confirmed by the entropy analysis (fig.20). However, the markers with the polarity “2” and “3” on the presented cartogram do not correspond to the expressed pathology. In such a case it is necessary to clear up the following things: first of all, if there are clinical symptoms of diseases previous to pleurisy, such as respiratory

infection and bronchopneumonia; then the presence of symptoms typical for pleurisy should be cleared up. The clinical picture of pleurisy develops mainly on the background of acute and chronic diseases of lower parts of respiratory tract. Besides the symptoms of an inflammatory reaction (temperature, weakness, inclination to sweat, increased palpitation (ChSS), increased ChDD, acceleration of SOE (erythrocyte sedimentation rate) in the blood, leucocytosis) can be noted pains in the area of the thorax, especially when doing breathing movements, deadening of percussion sound on the whole surface of the thorax; pleura friction noise can be registered by auscultation. If there are no clinical signs of pleurisy, we should pay our attention to the diagnoses “respiratory infection” and “bronchopneumonia” and carry out the test of corresponding organs.

Figure 18.

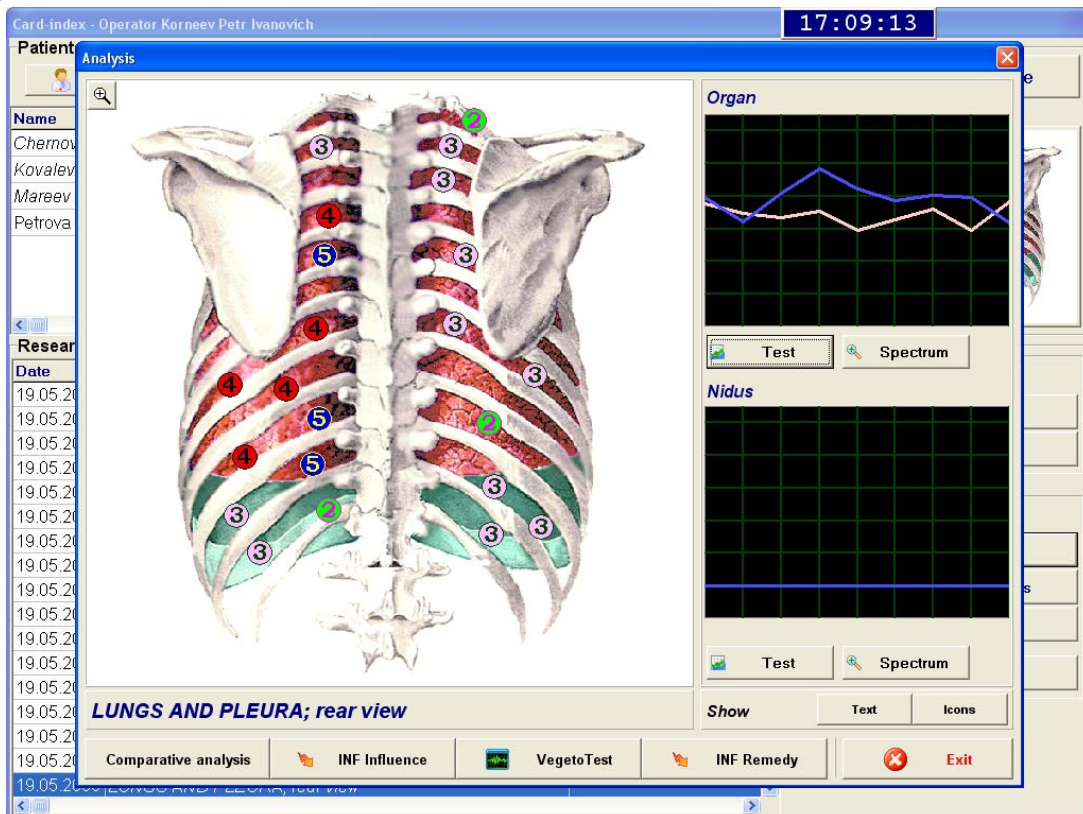


Figure 19.

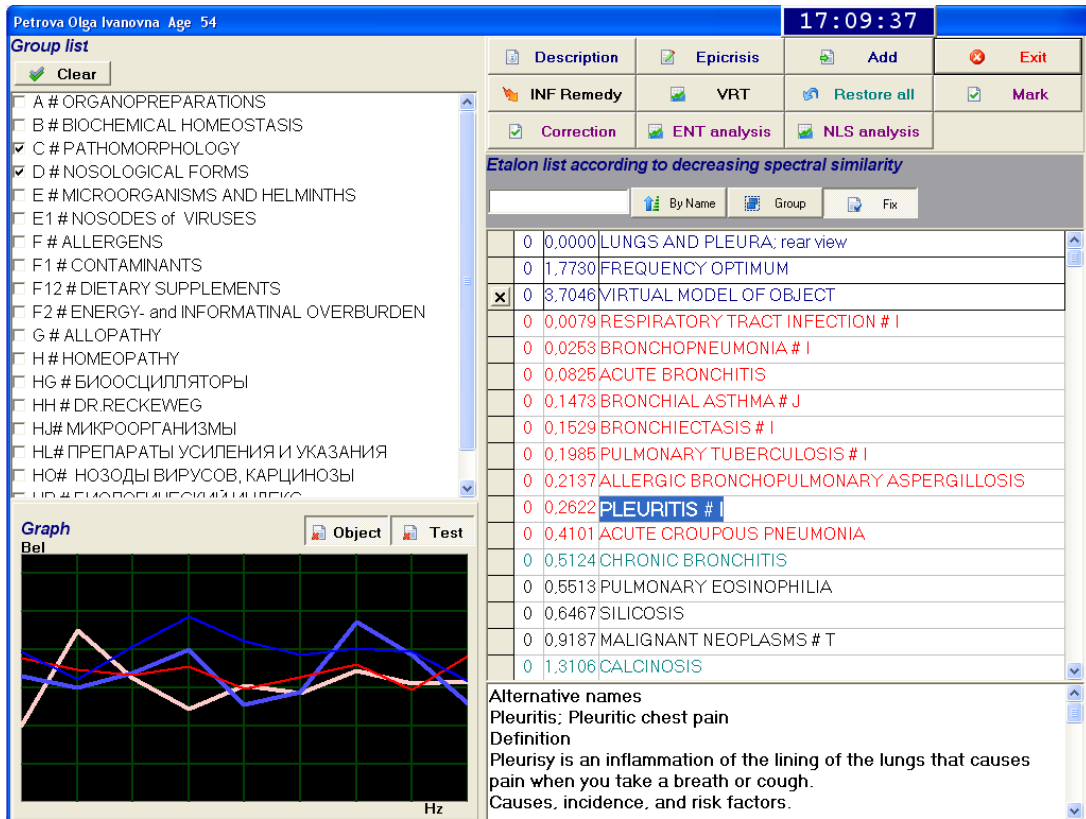
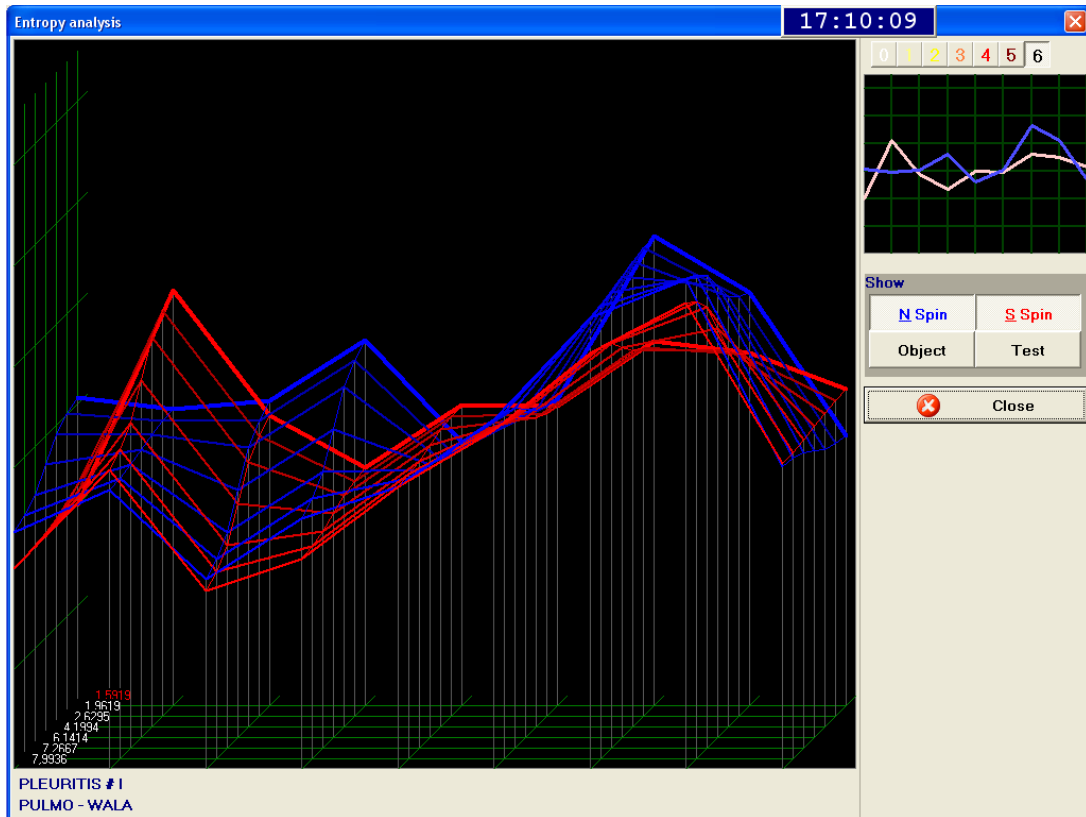


Figure 20.



Chapter 4. Diseases of urine-genital system

The diffuse disposition of pathological markers with the polarity 5 and 6 (fig.21) on the virtual model of bladder indicate the presence of an expressed pathological process; it is confirmed by test results (fig.22) and by entropy analyses (fig.23). The diagnosis "Cystitis" and "Prostatitis" offered by the program, must correspond to clinical manifestation, such as frequent and painful urination, weighting pains in the bottom part of the stomach, feeling as if the bladder is emptied not completely, pains in lumbar area, sub febrility.

In the acute period in the urine probe can be found an expressed or moderate leucocytosis, macro-or micro-hematuria. As confirmation can serve the data of ultrasound examination; this examination shows a moderate enlarged prostate with an enhanced echo-gene value; the state can be characterized as far advanced and having the tendency to an inhomogeneous structure. If the bladder is filled good, the condition of its wall can be estimated with the help of ultrasound examination; it can be thickened in the acute period and if the process has its chronic stage, it can be thickened and infiltrated (enhanced echo-gene value). If the virtual picture of the disease and the conclusion offered by the program do not correspond to the clinical picture, we should consider, that the pathology mentioned above, can have its chronic course and in that case should be recommended following: consultation of urologist and corresponding tool methods of examination, such as common blood analysis, urine analysis (general and after Netchiporenko), ultrasound examination of urine-genital system, cystoscopy, if these examinations have not been carried out earlier.

Figure 21.

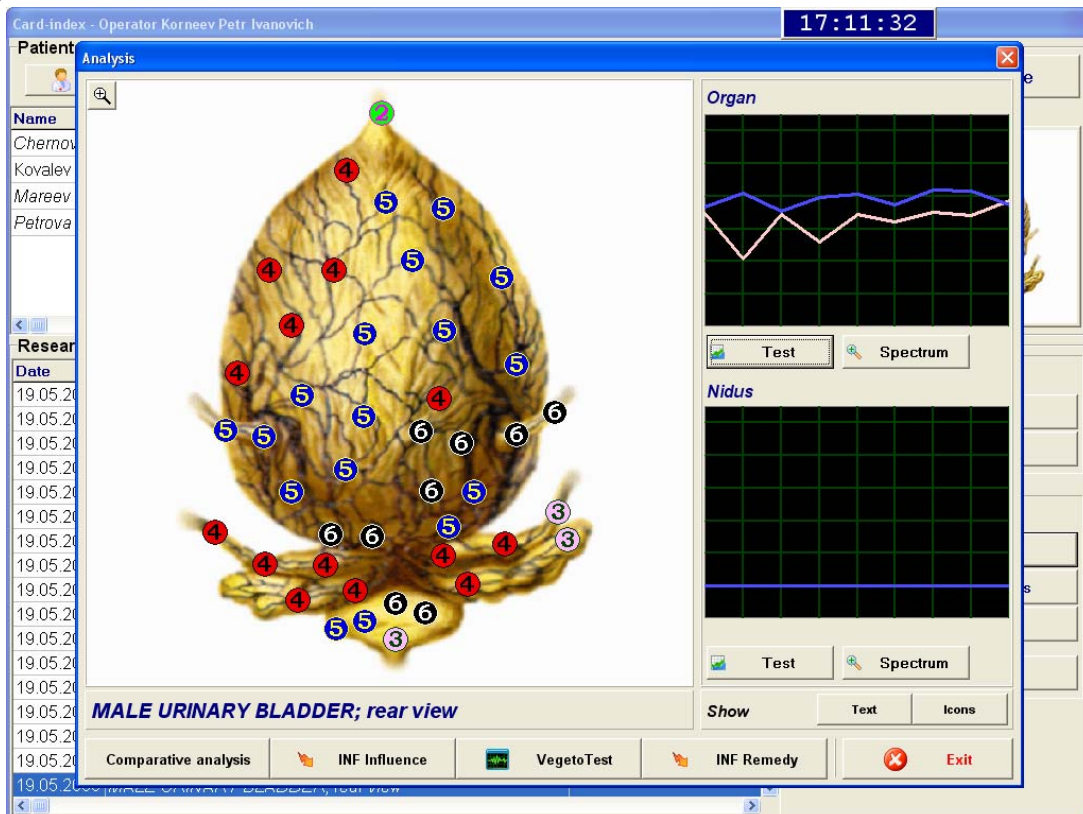


Figure 22.

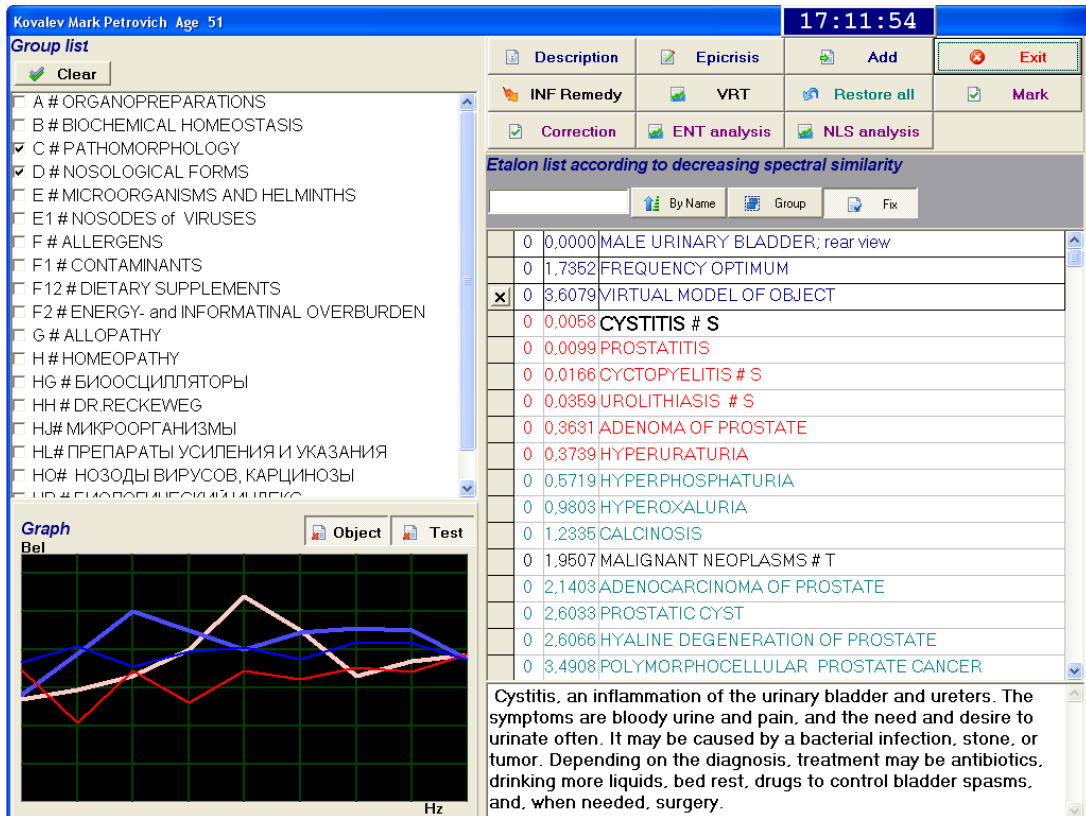
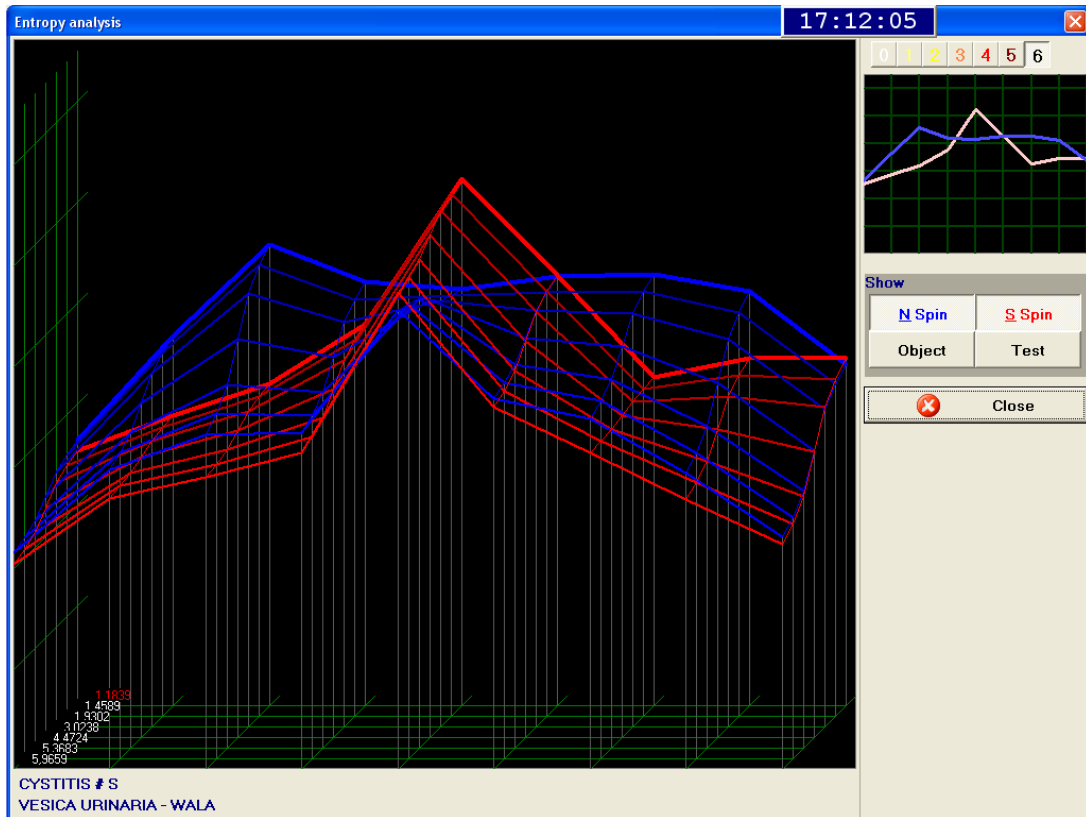


Figure 23



If myoma of uterus with an authentic enough coefficient (fig.25) is detected, we should take into account not only the presence of pathological markers (marker “4” in the area of uterus neck and cavity, (fig.24)), but the clinical information, too. So, in case of submucous myoma of uterus, as shown on the cartogram, the patient can have complaints about weighting pains in the bottom of stomach that become stronger

before menses, about plentiful and long bleeding in menses and also about secretion containing some blood in the period between menses; if myoma is big, the functions of small pelvis can be disturbed. Myoma of uterus is a serious gynecologic disease and can result in profuse bleedings and in regeneration into a neoplastic process. That's why even if myoma is suspected only, it is necessary to recommend to consult a gynecologist after being examined with an ultrasound transvaginal sensor with using the functions of the section "Recommendations" in the epicrisis.

Figure 24.

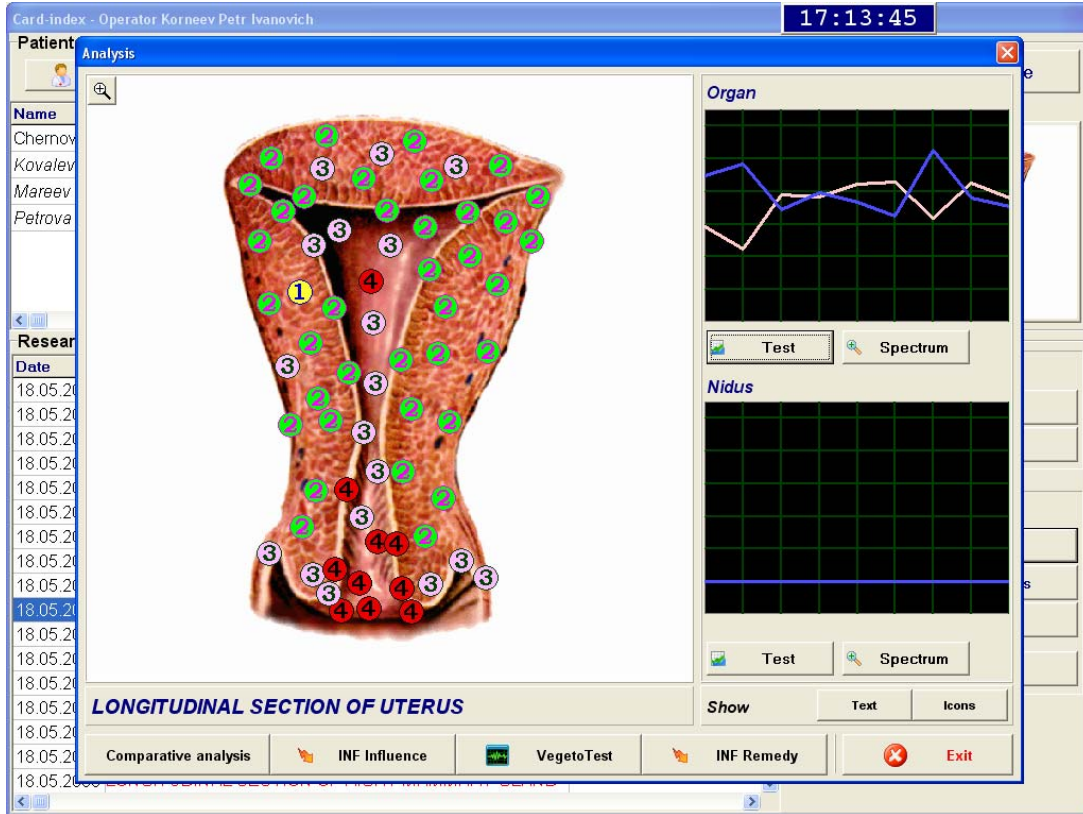


Figure 25.

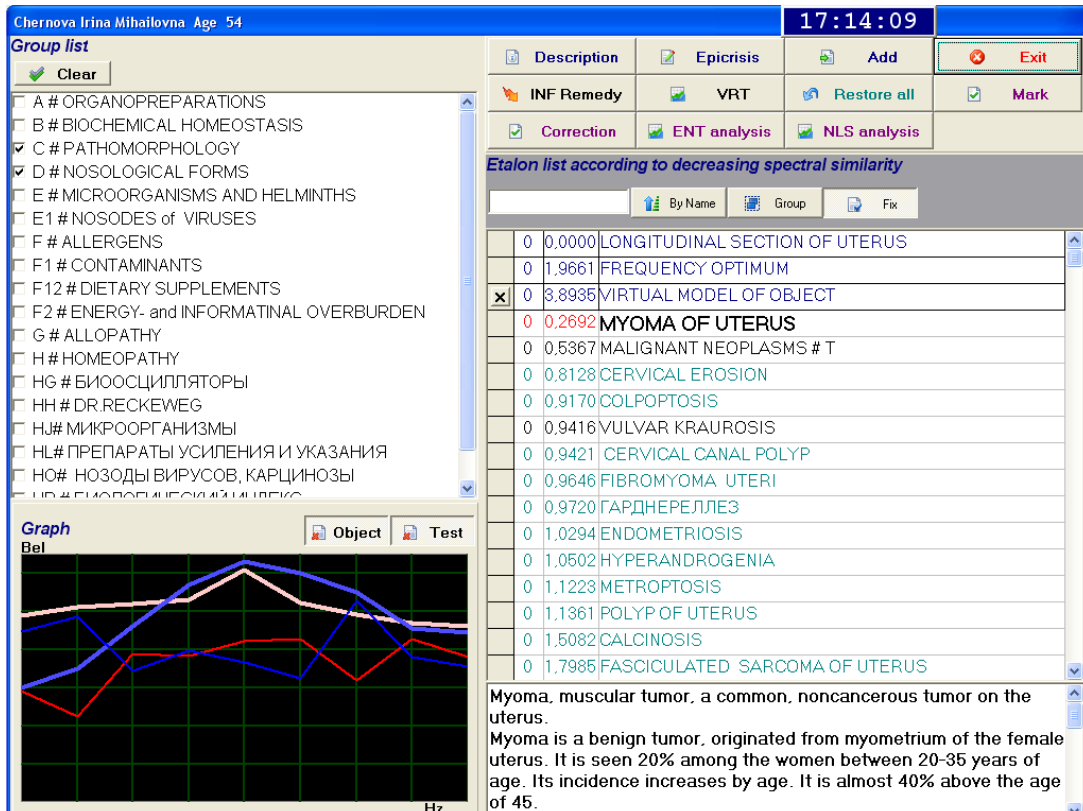
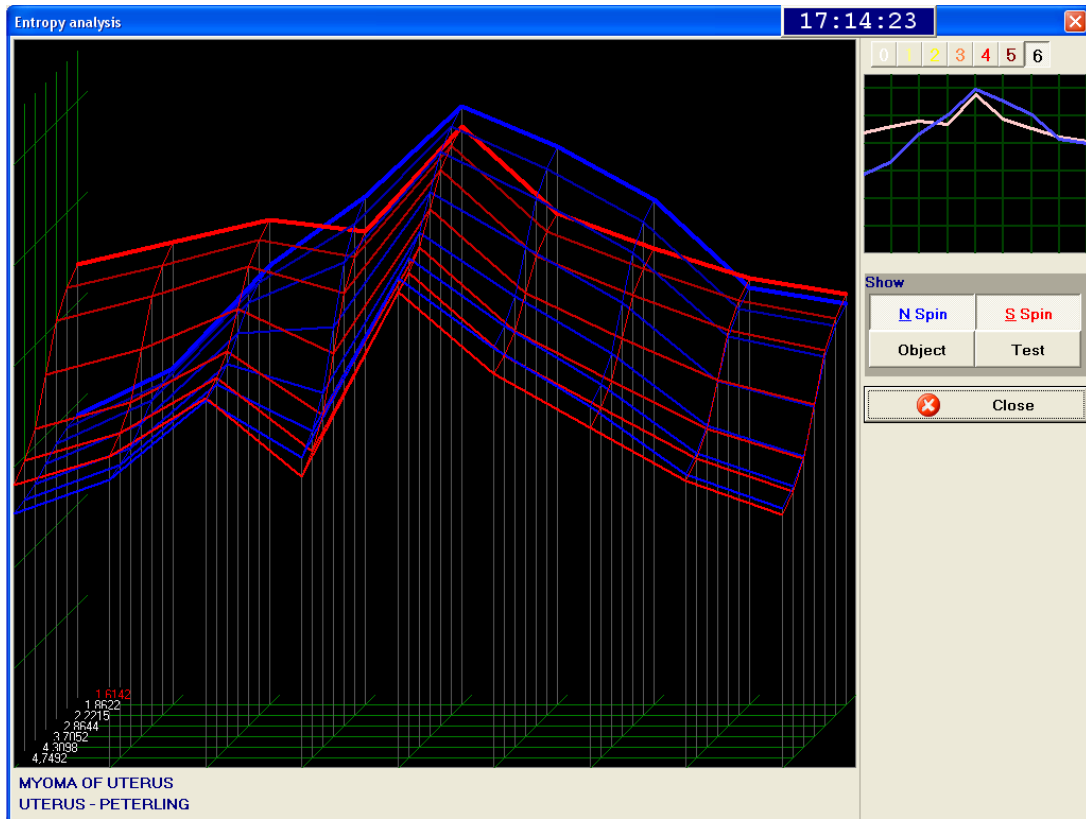


Figure 26.



Chapter 5. Diseases of cardiovascular system

The vegetovascular dystonia is one of the most widespread forms of cardiovascular system diseases and it can be found in young persons mainly. As shown in figure 27, a neurovascular bundle (markers with polarity 4 and 5) is involved into the process and the given pathology has a functional character (fig. 28). For vegetovascular dystonia are typical: moderate lability of AP, not exceeding the upper limits of norm, increased inclination to sweat, fatigue, headaches, cardialgies sometimes. When registering a cardiogram, an expressed increasing of tooth T voltage and a less expressed increasing of tooth R voltage, mainly in the thorax branches, can be noted. When carrying out an active orthostatic probe and a bicycle ergometry the inversion of tooth T and reducing of physical load tolerance can be noted. In radiological examination often the pathology of spinal column can be detected, mainly in a cervical-thoracic part.

If the above mentioned signs correspond to the situation of a concrete patient, the diagnosis «vegetovascular dystonia » can be considered as doubtless and be sent to the epicrisis. If the diseases revealed by the program does not correspond to the clinical picture, the differential diagnostics with endocrine pathology, with nervous system diseases and with organic diseases of cardiovascular system should be done.

Figure 27.

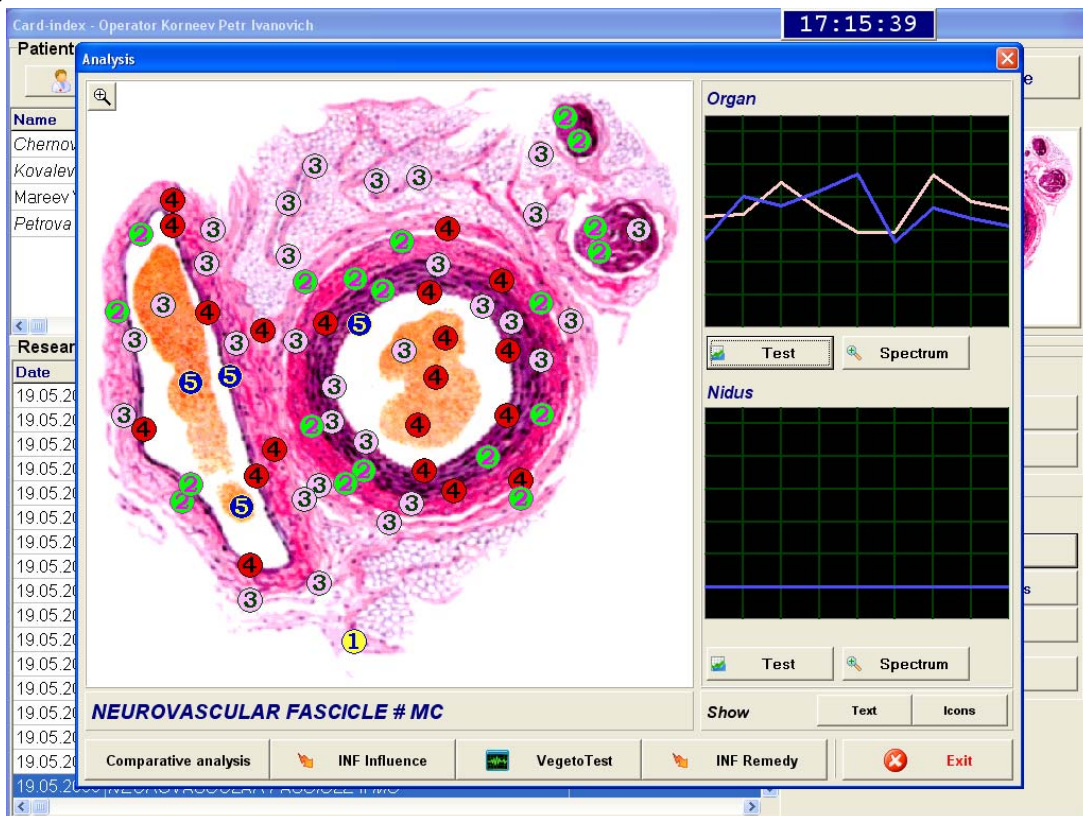


Figure 28.

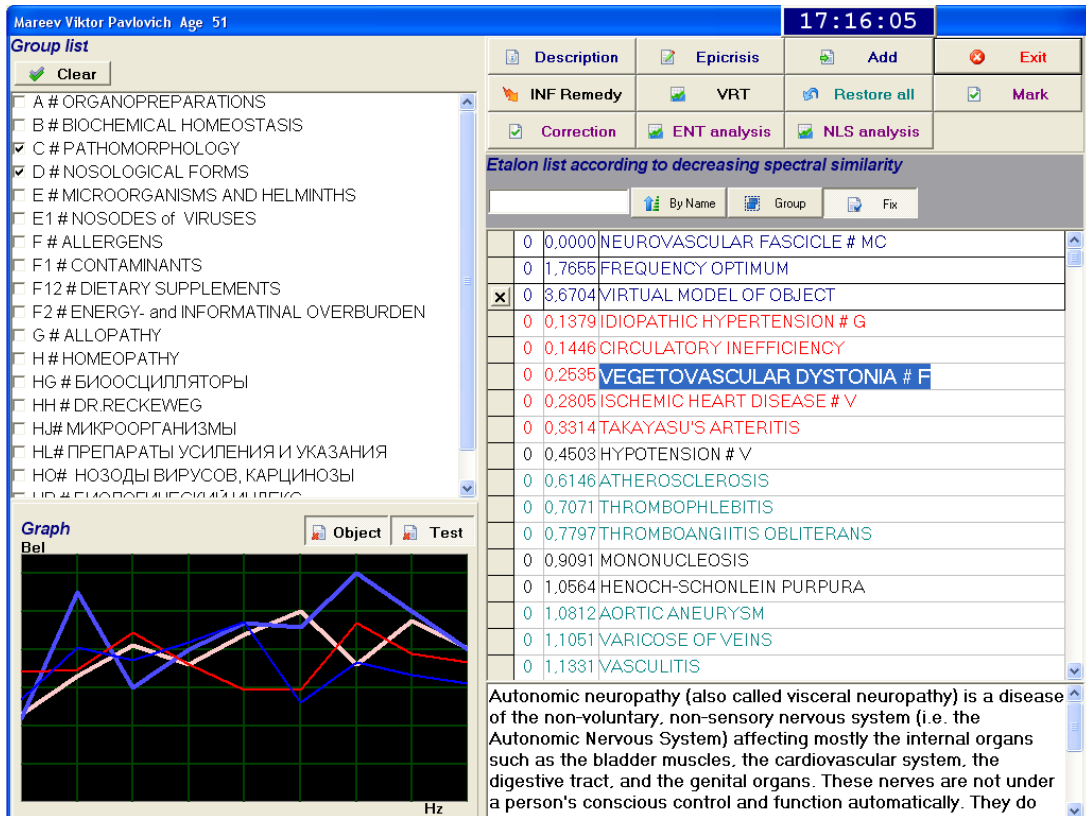
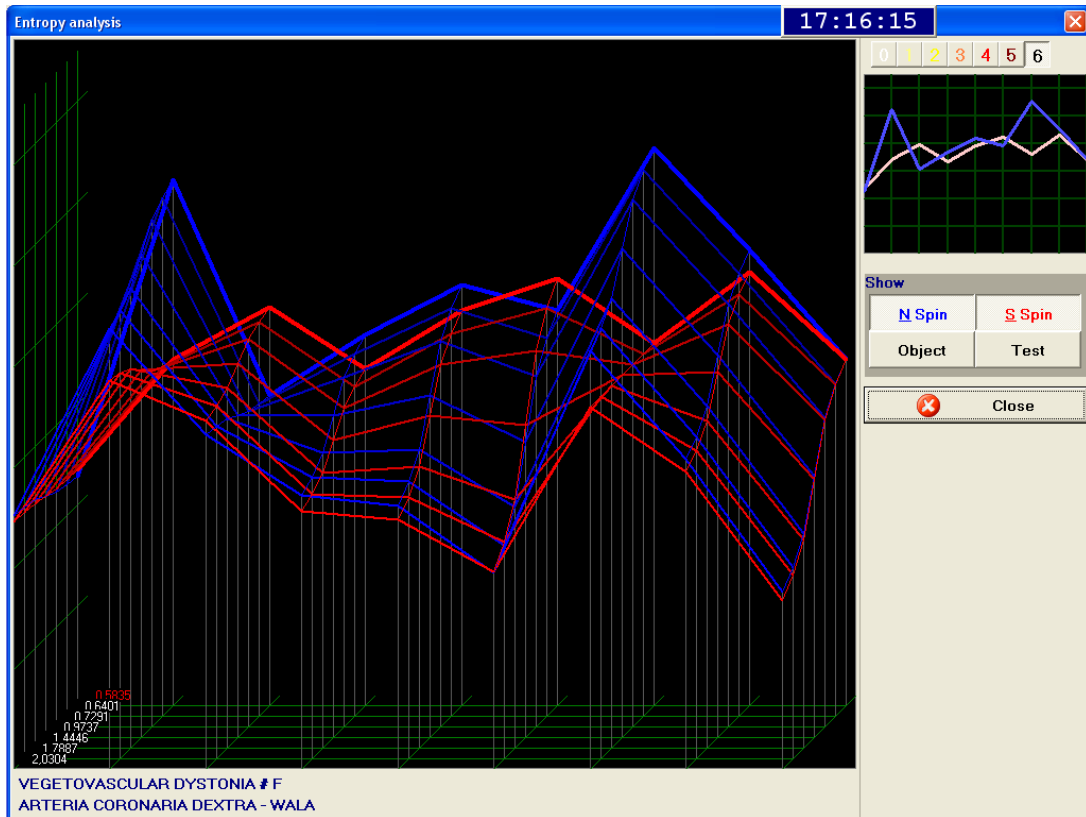


Figure 29.



.On the cartogram shown in figure 30 is visible, that the pathological changes of heart vessels concern mainly to the right branch of the front coronal artery; it is confirmed by the conclusion the program has done (ischemic heart disease) f (fig.31) and by the results of entropy analyses (fig.32). As clinical-anamnestic confirmation of ischemic heart disease can be considered the complaints about periodically

appearing pressing pains behind the breast-bone; the pains irradiate into the left shoulder-blade and the left arm and appear when fulfilling different kinds of manual works. As clinical-instrumental confirmation of the selected diagnoses can be considered, first of all, the revealed depression of ST segment on the electrocardiogram being registered at the moment of ischemic attack, a positive bicycle-ergometry test result, revealing of ischemic profile by monitoring of 24-hours electrocardiogram. As the ischemic heart disease arises on the background of atherosclerotic defeat of vessels, it is necessary to find out, as minimum, if the level of low-density lipoproteins, of triglycerides, of cholesterol (general) and of troponine I is enhanced; the Troponine I is one of the essential markers of ischemic heart disease. When all the symptoms mentioned above are combined, the diagnoses ischemic heart disease can be considered doubtless.

The diagnoses "heart diseases", "rheumatic heart disease", "myocarditis", which also have authentic enough factors, have to be verified with using of echocardiography and of clinical-laboratory examinations, listed in the section "Epicrisis" of the program Dianel Pro.

Figure 30.

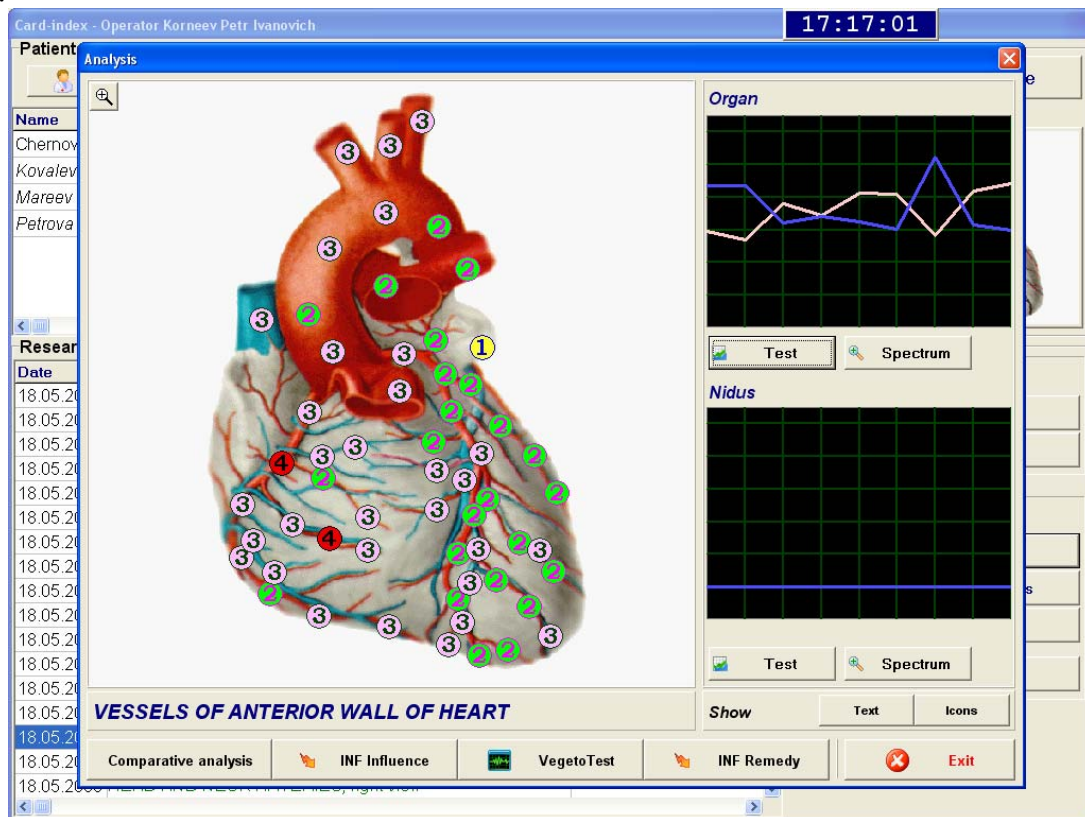


Figure 31.

Chernova Irina Mikhailovna Age 54 17:17:26

Group list

- A # ORGANOPREPARATIONS
- B # BIOCHEMICAL HOMEOSTASIS
- C # PATHOMORPHOLOGY
- D # NOSOLOGICAL FORMS
- E # MICROORGANISMS AND HELMINTHS
- E1 # NOSODES of VIRUSES
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- F1 # CONTAMINANTS
- F12 # DIETARY SUPPLEMENTS
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- H # HOMEOPATHY
- HG # БИООСЦИЛЛЯТОРЫ
- HH # DR.RECKEWEG
- HJ# МИКРООРГАНИЗМЫ
- HL# ПРЕПАРАТЫ УСИЛЕНИЯ И УКАЗАНИЯ
- HO# НОЗОДЫ ВИРУСОВ, КАРЦИНОЗЫ
- HU# БИОСОВЕЩАТЕЛЬНЫЕ ЦЕПКИ

Graph

Bel

Object Test

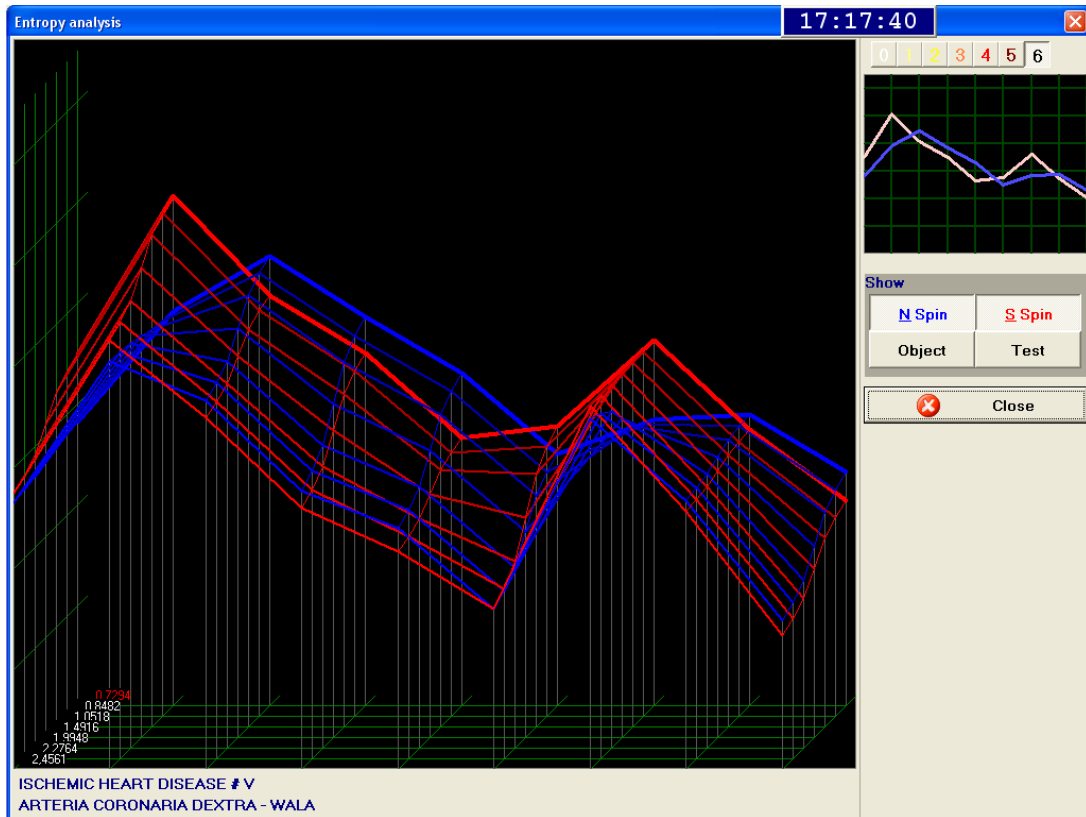
Description	Epicrisis	Add	Exit
INF Remedy	VRT	Restore all	Mark
Correction	ENT analysis	NLS analysis	

Etalon list according to decreasing spectral similarity

0	0,0000	VESSELS OF ANTERIOR WALL OF HEART
0	1,8512	FREQUENCY OPTIMUM
x	3,7048	VIRTUAL MODEL OF OBJECT
0	0,1101	HEART DEFECT # V
0	0,2243	CIRCULATORY INEFFICIENCY
0	0,2321	MYOCARDITIS
0	0,2560	RHEUMATIC CARDITIS # V
0	0,2616	ISCHEMIC HEART DISEASE # V
0	0,3013	VEGETOVASCULAR DYSTONIA # F
0	0,3422	CONGESTIVE CARDIOMYOPATHY
0	0,3477	IDIOPATHIC HYPERTENSION # G
0	0,4116	MYOCARDIODYSTROPHY
0	0,4248	TAKAYASU'S ARTERITIS
0	0,5234	MYOCARDIAL INFARCTION
0	0,6491	HYPOTENSION # V
0	0,7944	STENOCARDIA
0	0,7990	AORTIC ANEURYSM

Ischemic heart disease. a state caused by lack of oxygen to tissue cells.

Figure 32.



Chapter 6. Diseases of blood

On the shown cartogram of blood examination (fig.33) the blood corpuscles (erythrocytes) are marked with pathological markers with polarity 4, 5, 6; it corresponds to the offered diagnoses "Anemia".

For anemia is typical paleness of skin integuments, expressed weakness, inclination to sweating, an expressed tachycardia, if the illness stadium has become advanced, short breath when having insignificant physical loading. The development of anemia can be promoted by wrong nutrition, by vegetarian diet, for example. Anemia can also develop in result of alimentary canal diseases, such as atrophic gastritis, stomach and duodenum ulcer, erosive colitis. Besides that, to the development of anemia contributes the disturbed absorbability of iron - B12, the iron deficiency anemia, in disturbed erythropoiesis and oncologic diseases. Acute and chronic bleedings can also be the reason of developing anemia.

The doctor working with the program « Dianel PRO » should compare the facts, mentioned above, with the clinical picture of the examined patient, with the results of entropy analyses (fig.35) and recommend some preventing or treating actions and an additional examination, a common blood probe, as minimum. The level of hemoglobin in case of manifesting anemia does not exceed 100 g/l., but in norm it should be 130-160g/l in men and 120-140 g/l in women.

In addition, in case of revealed anemia should be recommended: gastroscopy, faeces probe to find out the latent blood, colonoscopy. Thus, all the necessary actions to detect the factors of risk in proper time and to treat the revealed diseases will be done.

Figure 33.

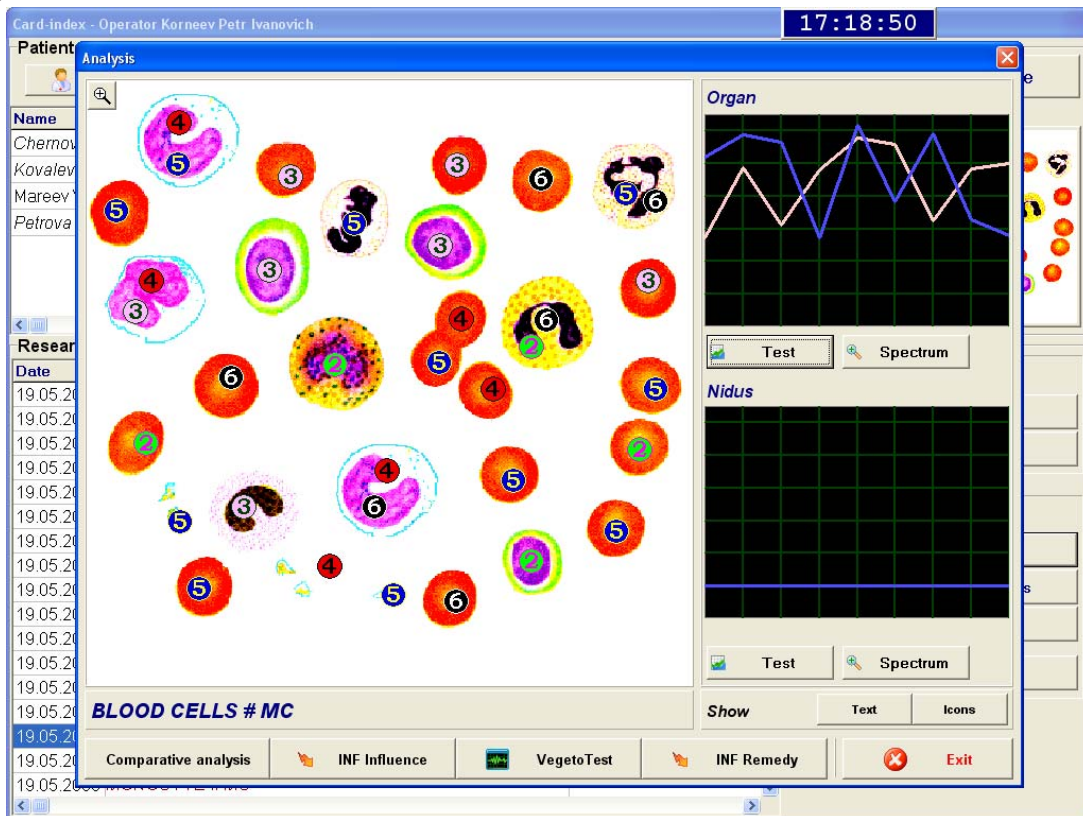


Figure 34.

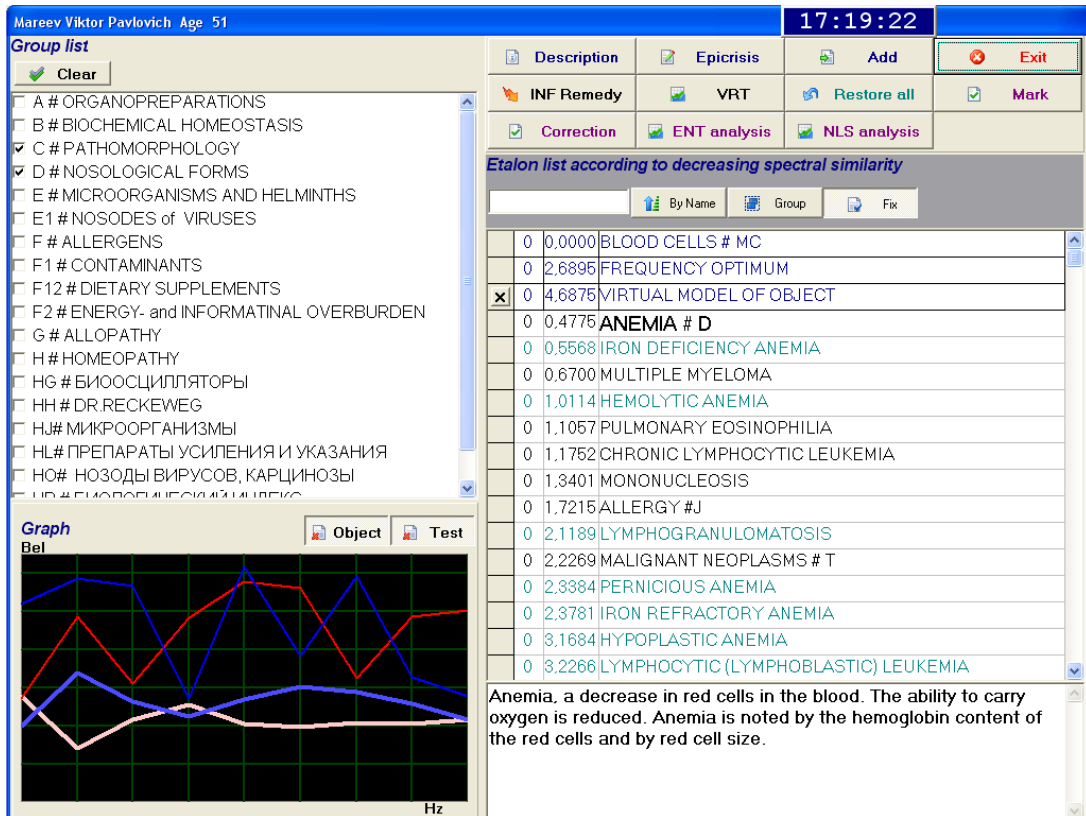
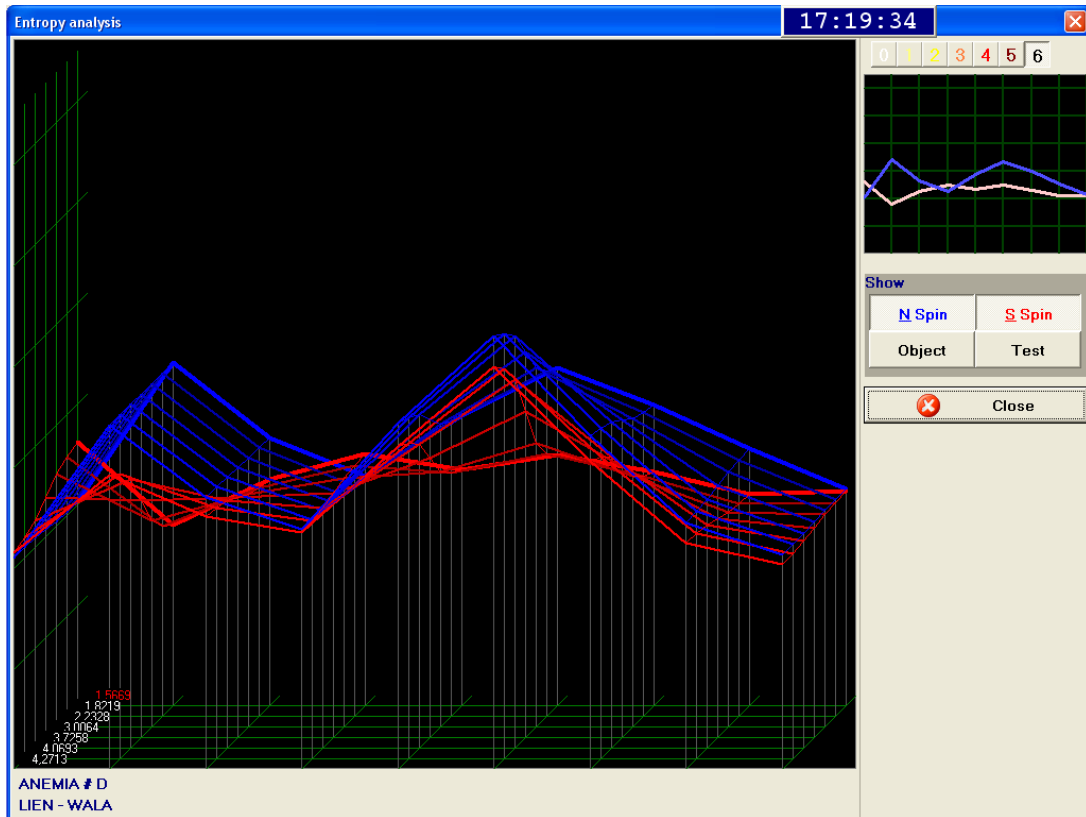


Figure 35.



Myeloma illness is the diseases of blood system, concerning to paraproteinemic leucosis. The swelling tissue grows mainly in flat bones (skull, ribs, pelvis) and in the backbone, initiating osteolysis and osteoporosis in them. On the roentgenogram the centers of affection look like smooth-wall holes. Cavities are formed in the area of growing myeloma cells due to the osteoclasts activated by them; the

osteoclasts make lysis and resorption of bone tissue (sinus resorption). The swelling infiltrates can be found out not only in the marrow, but in other organs, too. The complications of myeloma illness are developing own to the destruction of bone tissue; the spontaneous fractures can be supervised. The pains in bones cause inconvenience, and in result of paraproteines production the amiloidosis begins to develop (AL amilodosis), paraproteinemic coma and paraproteinosis of organs. One of the laboratory markers of myeloma illness is the detection of pathological Bens-Jones protein in blood probe. Additional methods of examination are densitometry and radiography. On the given cartogram practically all blood cells are marked with pathological markers. When taking into account, that the program has offered the diagnoses “multiple mieloma” with the coefficient “0,5791” (boundary reliability), as shown in figure 37, and the entropy analyses shows an average degree of reliability of “3”, the diagnosis “multiple myeloma” can be considered as doubtful; therefore, a comparison with the clinical picture and with the data of instrumental laboratory examinations, mentioned above, is necessary.

Figure 36.

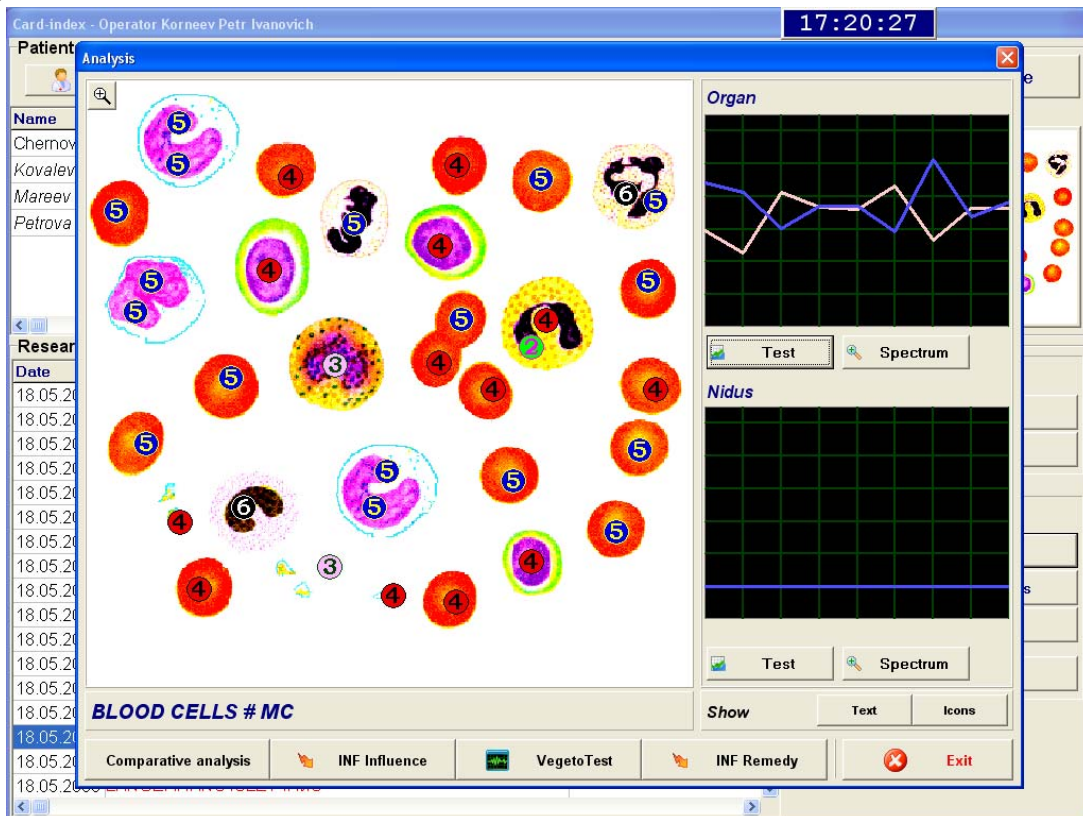


Figure 37.

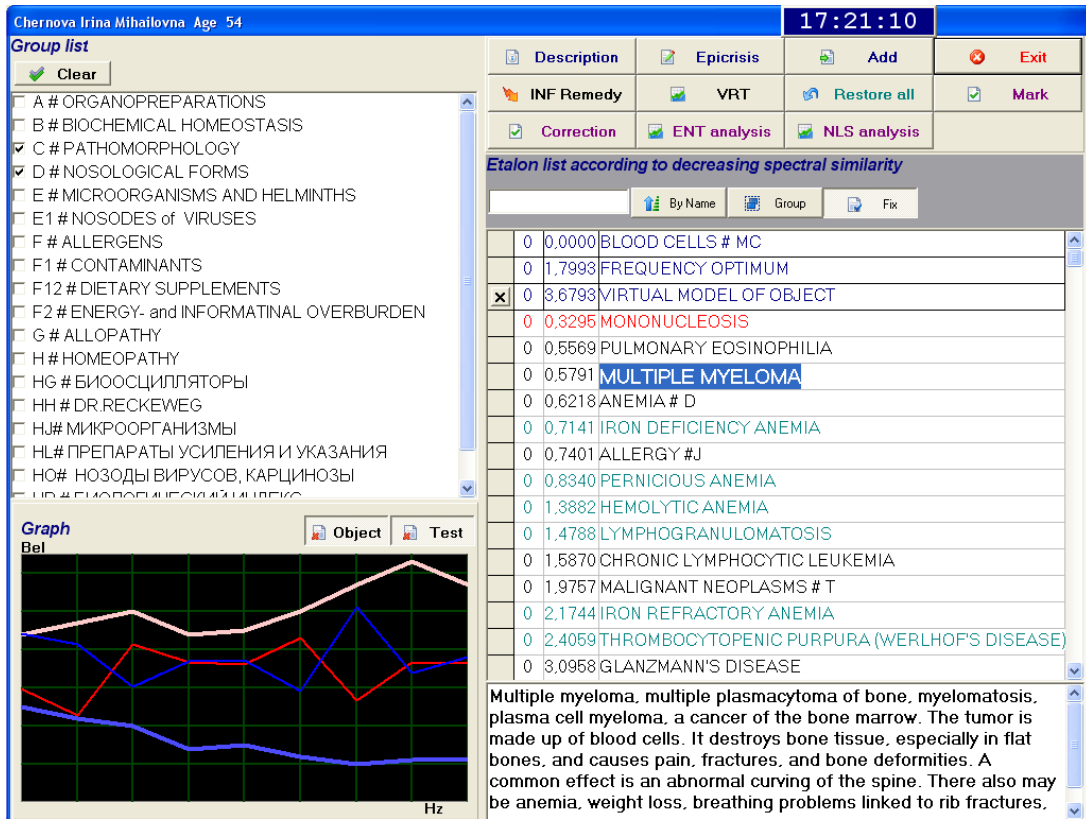
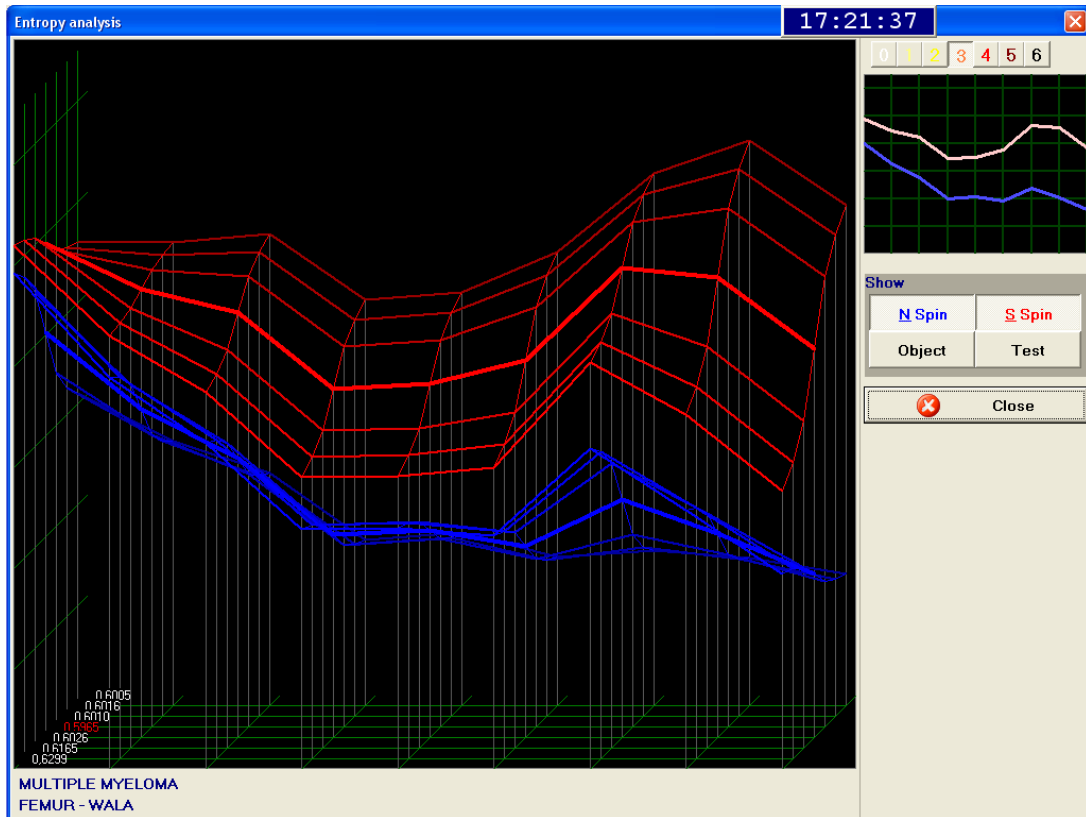


Figure 38.



Chapter 7. Endocrine system diseases

The given cartogram of thyroid gland (figure 39) shows, that the pathological changes are located mainly in the area of its left and right lobes (markers with polarity 4). The conclusion “hypothyroidism” of thyroid gland” offered by the program, is confirmed by the results of entropy analyses (figure 41). Besides of the verification of diagnoses with the help of the program, the doctor should take into account the clinical picture of the disease. So, for hypothyreosis are typical: the lowered level of thyroid hormones, first of all; decreased basic exchange, that can result in lowering of body temperature to 36,0 and lower, especially in the mornings. For hypothyroid dysfunctions of thyroid gland are typical: weakness, diffused pastos, decreased mental functions. The ultrasonic research can show structural changes of thyroid gland tissue, such as nodular formations, with various localization; in the given example they are located in the neck area.

If the diagnosis offered by the program does not absolutely correspond to the described picture of the disease, the doctor should recommend corresponding additional examinations, which are described in the section "Examinations" of the epicrisis, and to recommend to consult an endocrinologist, not to miss a serious pathology.

Figure 39.

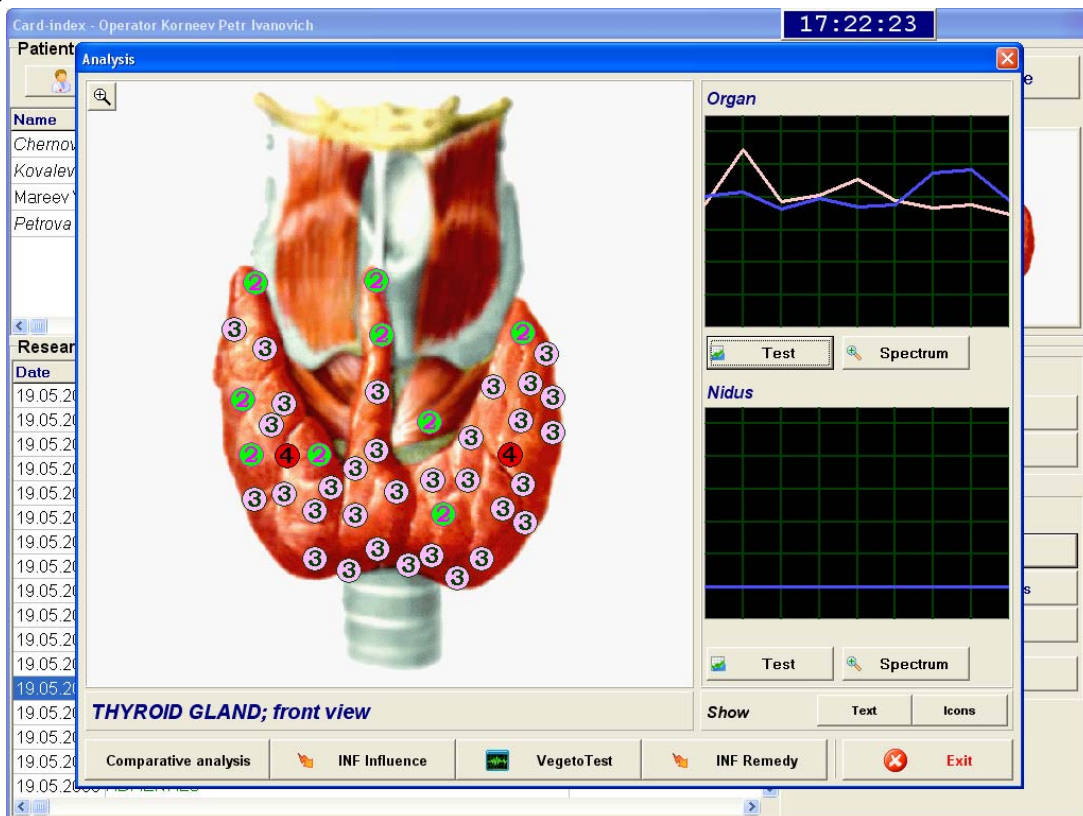


Figure 40.

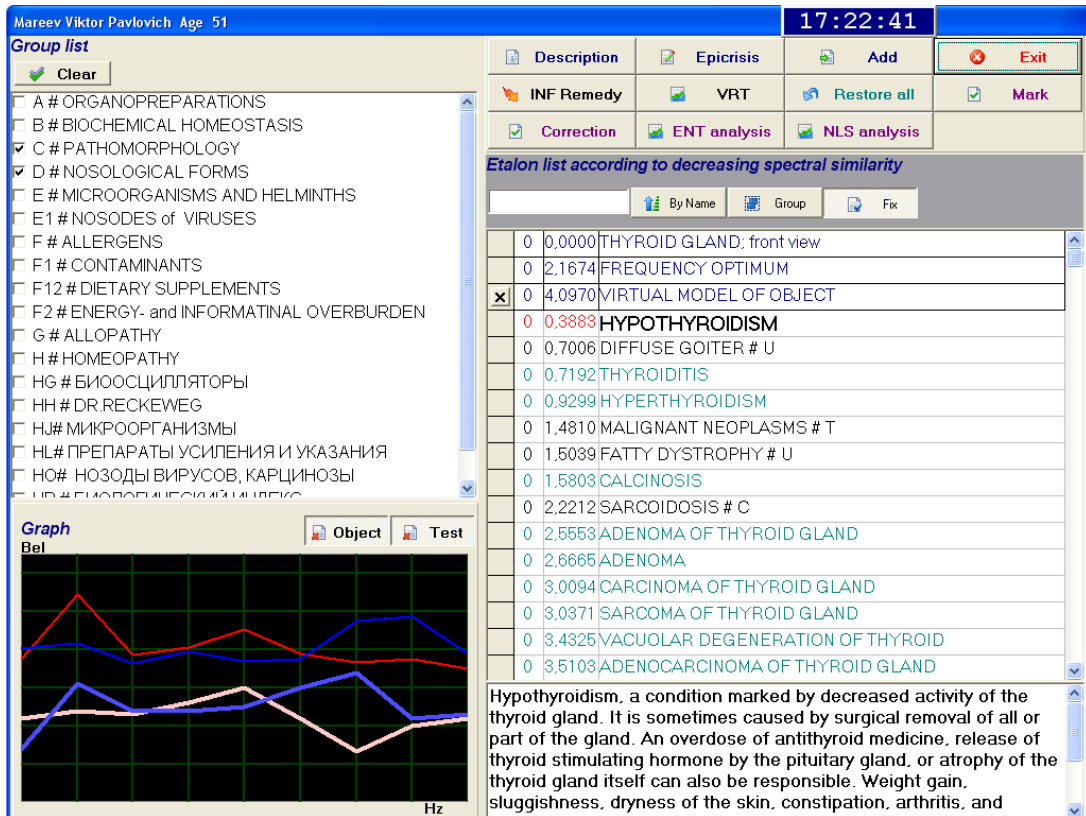
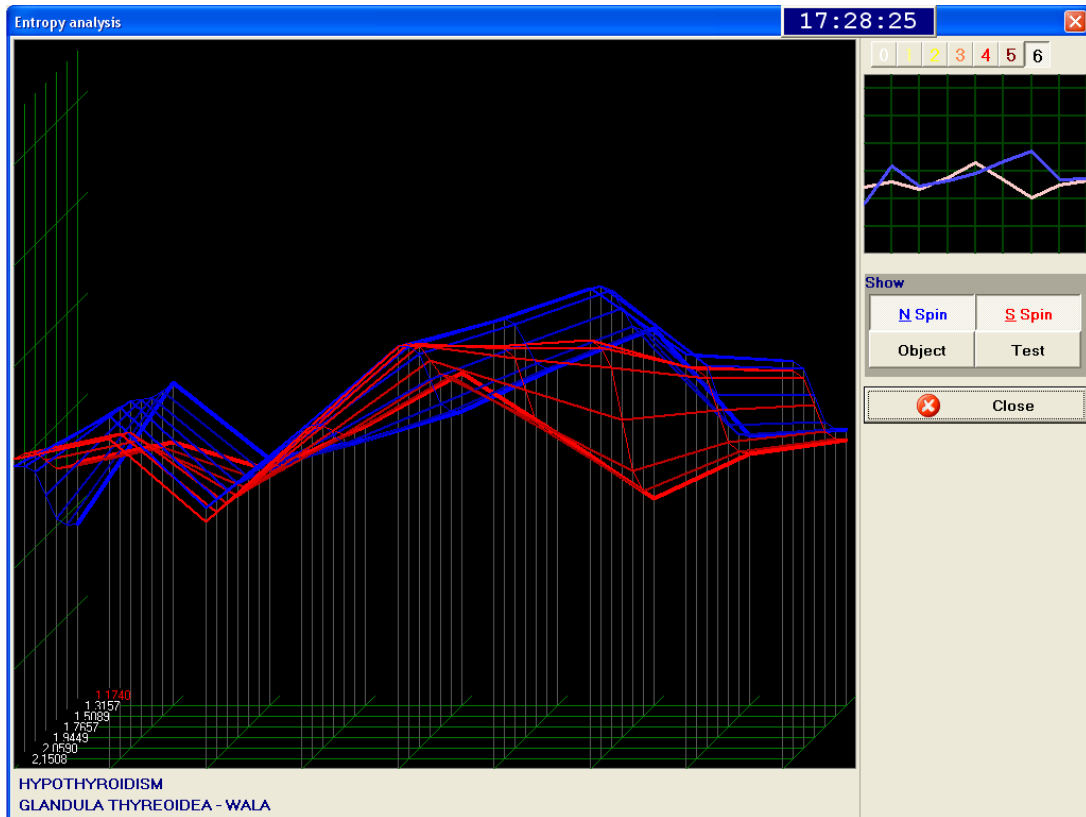


Figure 41.



Insulin-independent diabetes (diabetes of type II) is a frequently presented pathology among the people. The factors provoking the carbohydrate exchange disturbance are following ones: an inactive way of life, stresses, over-use of high-calorific food rich with "easy" carbohydrates, a burdened heredity. For producing of insulin (hormone promoting the recycling of glucose) answer the beta-cells, located on

islands of Langerhans of pancreas.

On the given cartogram of the island of Langerhans (fig.42) the prevailing markers are those with the polarity "5" and "4"; it means, that besides organic pathology there is a disturbance of functional activity of the organ. The conclusion "insulin-independent diabetes" (fig.43) the program has offered, has a high degree of reliability with the coefficient of 0,0624 and with "6" in result of entropy analyses (fig.44); therefore, the given formulation can be sent to the epicrisis. Thereat we should take into account, that the reliability of this disease is confirmed by the data of common clinical examination, first of all. So, the diabetes diagnosis is proved, if the level of capillary glucose on empty stomach is more than 5,5 mmol/l or glucose of plasma is more than 6,0 mmol/l, and the level of postprandial glucose is more than 7,5 mmol/l. Besides that, the complaints of dryness in the mouth, feeling thirsty, dizziness before having meals, dryness of integuments, fine-pointed skin breakings, itch, polyuria are important. At the later stages of disease macro-and microangiopathies, neuropathies can develop.

Figure 42.

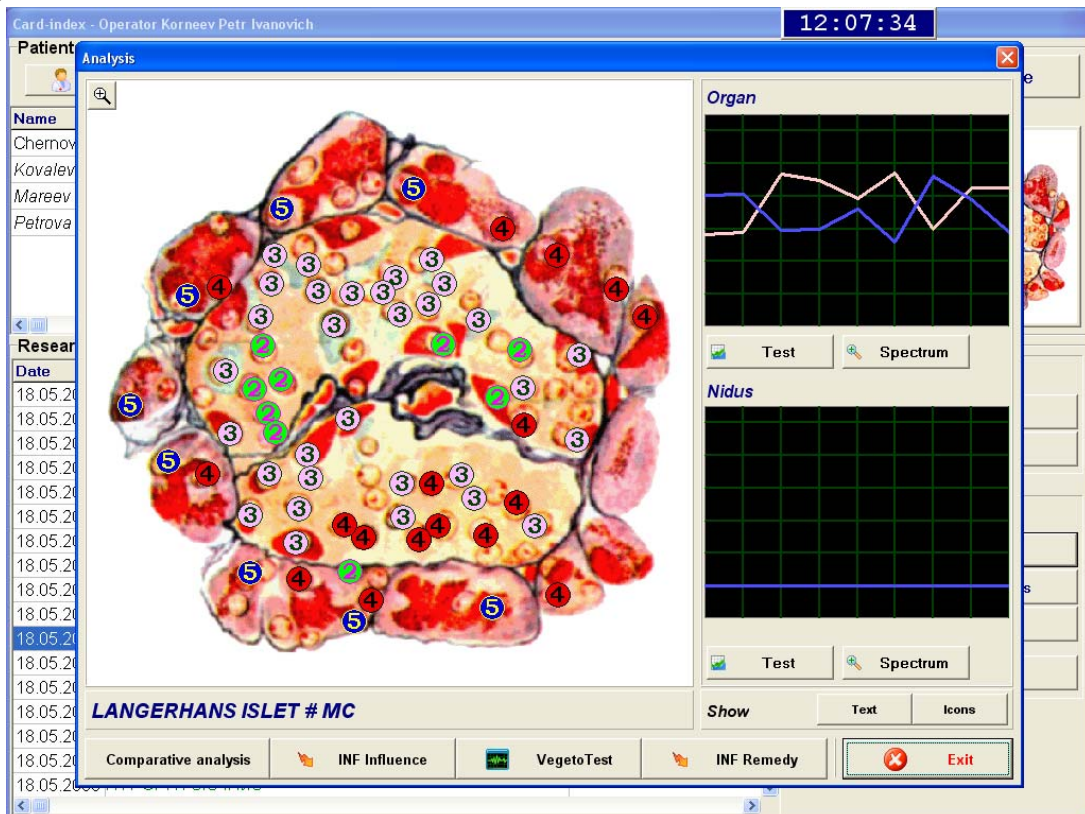
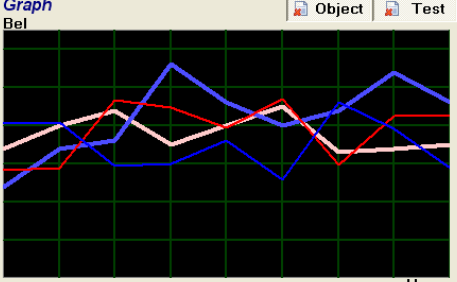


Figure 43.

Chernova Irina Mikhailovna Age 54 12:08:33

Group list

A # ORGANOPREPARATIONS
 B # BIOCHEMICAL HOMEOSTASIS
 C # PATHOMORPHOLOGY
 D # NOSOLOGICAL FORMS
 E # MICROORGANISMS AND HELMINTHS
 E1 # NOSODES of VIRUSES
 F # ALLERGENS
 F1 # CONTAMINANTS
 F12 # DIETARY SUPPLEMENTS
 F2 # ENERGY- and INFORMATINAL OVERBURDEN
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 H # HOMEOPATHY
 HG # БИООСЦИЛЛЯТОРЫ
 HH # DR.RECKEWEG
 HJ# МИКРООРГАНИЗМЫ
 HL# ПРЕПАРАТЫ УСИЛЕНИЯ И УКАЗАНИЯ
 HO# НОЗОДЫ ВИРУСОВ, КАРЦИНОЗЫ
 HU# БИОСОВЕЩАТЕЛЬНЫЕ ЦЕПКИ

Graph
 Bel

 Hz

Etalon list according to decreasing spectral similarity

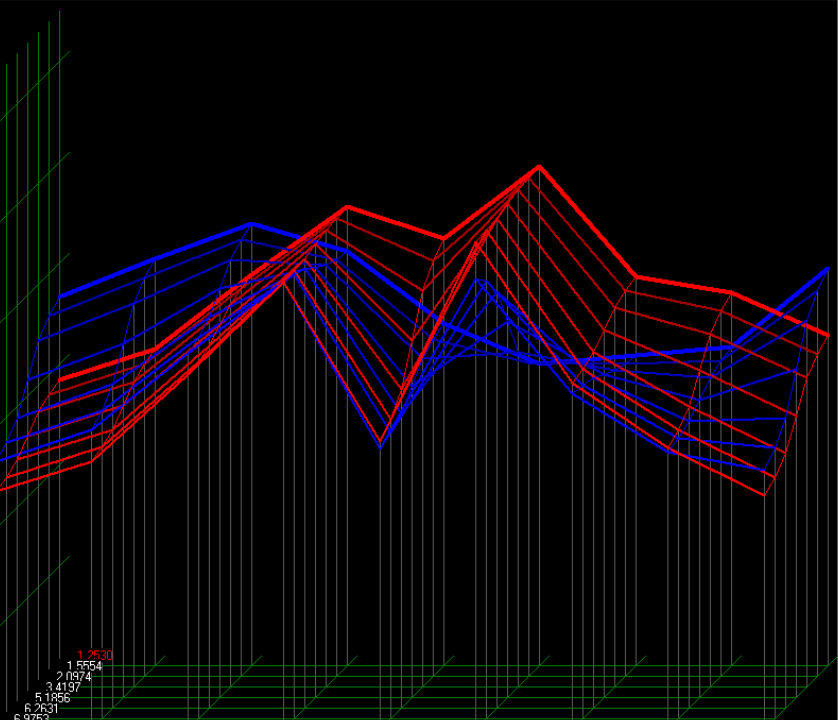
0	0.0000	LANGERHANS ISLET # MC
0	1.8853	FREQUENCY OPTIMUM
x	0	3.7222 VIRTUAL MODEL OF OBJECT
0	0.0624	NON-INSULIN-DEPENDENT (TYPE II) DIABETES MELLITUS
0	0.4397	PROGRESSIVE DIABETES MELLITUS
0	0.6844	CHRONIC RELAPSING PANCREATITIS
0	1.1215	FATTY DYSTROPHY # U
0	1.3416	ACUTE ENZYMATIC PANCREATITIS
0	1.6036	SQUAMOUS CELL CARCINOMA OF PANCREAS
0	1.7926	CALCINOSIS
0	1.8716	MALIGNANT NEOPLASMS # T
0	1.9010	ADENOCARCINOMA OF PANCREAS
0	2.0098	ADENOMA OF PANCREAS
0	2.0310	PARANICULAR SCLEROSIS OF PANCREAS
0	2.0452	ACUTE HEMORRHAGIC PANCREATITIS
0	2.3276	SARCOIDOSIS # C
0	2.6741	INSULOMA

Pancreatitis, a swelling of the pancreas. Acute pancreatitis is often the result of damage to the gallbladder (biliary tract) by alcohol, injury, infection, or drugs. Symptoms are severe abdominal pain moving to the back, fever, loss of appetite, nausea, and vomiting. There may be yellowing of the skin (jaundice). Sores (pseudocysts) in pancreas tissue are a serious problem. Fluids are given through

Figure 44.

Entropy analysis 12:10:26

0 1 2 3 4 5 6


 Hz

NON-INSULIN-DEPENDENT (TYPE II) DIABETES MELLITUS
 PANCREAS - PETERLING

Close

Chapter 8. Diseases of nervous system

When examining the features of locomotor apparatus diseases, on the virtual model of spine column (fig.45), we can note, that the pathological markers (with the polarity 3, 4) are primary concentrated in the cervical area. In the offered list of conclusions is dominating neuralgia (fig.46), which is confirmed by the entropy analyses (fig.47). Hence, in such a situation, the patient should complaint to pains in the field of the neck and in the top part of thoracic vertebrae of vertebral column with a possible irradiation into the area of the haired part of the head, into the shoulder and into the forearm. Overcooling, long staying in an inconvenient pose, a virus-infectious disease can be the reasons of the given situation. The physical examination shows rigidity of muscles and painfulness in paravertebral points in the mentioned part. The radiological examination can show the signs of osteochondrosis in the top thoracic and cervical vertebrae; if osteochondrosis has its expressed form, the ultrasound examination can reveal the squeezing of paravertebral arteries.

If the clinical picture described above conforms to the conclusions offered by the program the doctor can send the diagnosis to epicrisis with confidence. If there is no complete correspondence, the condition revealed by the program should be differentiated with Herpes Zoster or with the root syndrome; besides that, a radiological examination should be recommended if it was not done earlier.

Figure 45.

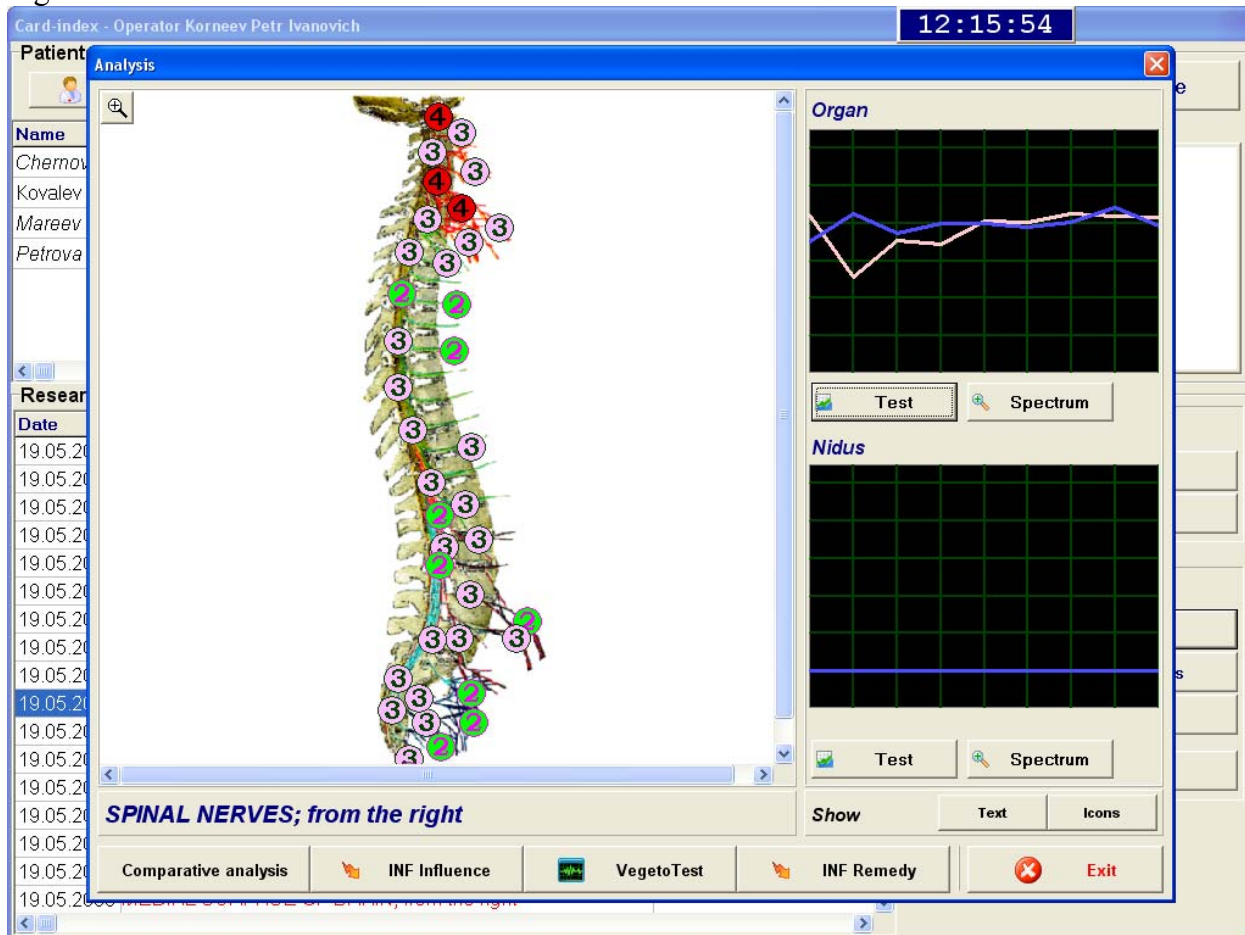


Figure 46.

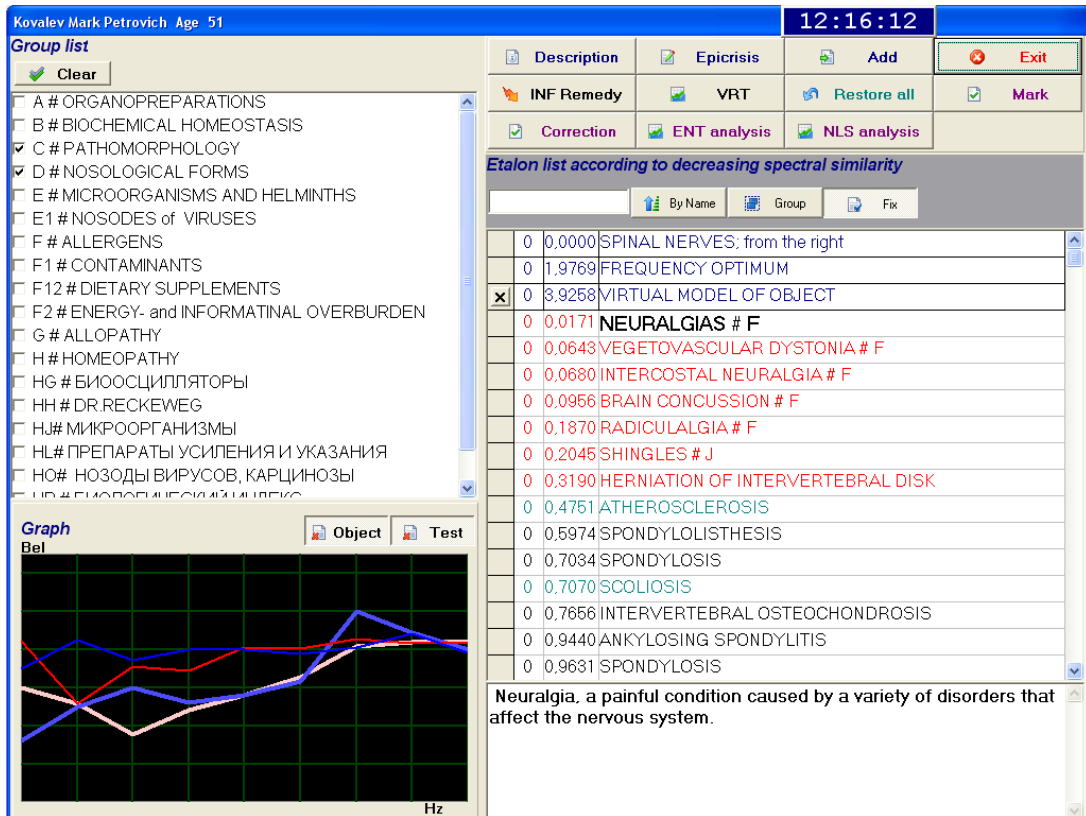
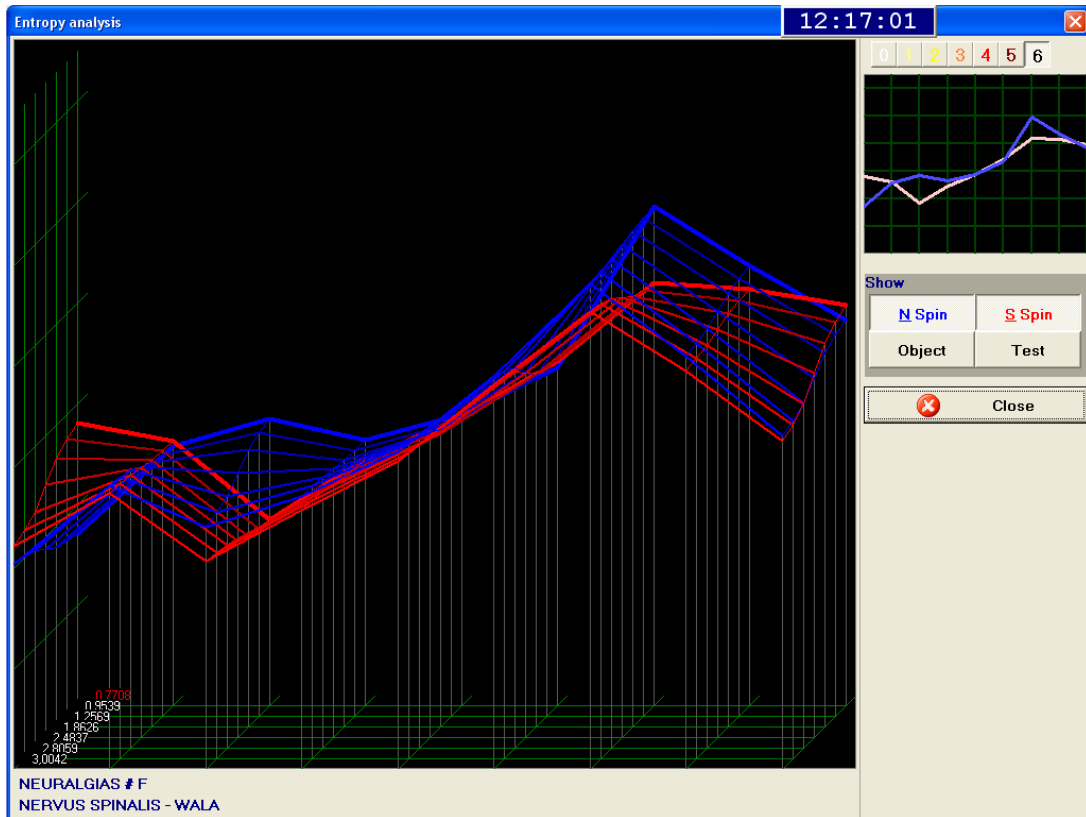


Figure 47.



On the shown cartogram (fig.48) we can see, that the functional disturbances of brain vessels (markers with polarity "4") are detected in the left parts mainly. The conclusion about the presence of migraine (fig.49) offered by the program must combine with complaints about periodically arising intensive pains in the right half of the head; the pains have a prolonged character and can result in a total or partial

disability. As the persons suffering from migraines are young women mainly, the revealing of the given disease in men can be considered as doubtful. If there are no expressed symptomatic signs in women but there is a picture similar to figure 48, detected in men, another genesis of arising headaches should be taken into account and the attention should be paid to such conclusions as “vegetative vascular dystonia” and “hypotension” which are offered by the program; they have a boundary factor and can be reasons of headaches, too.

Figure 48.

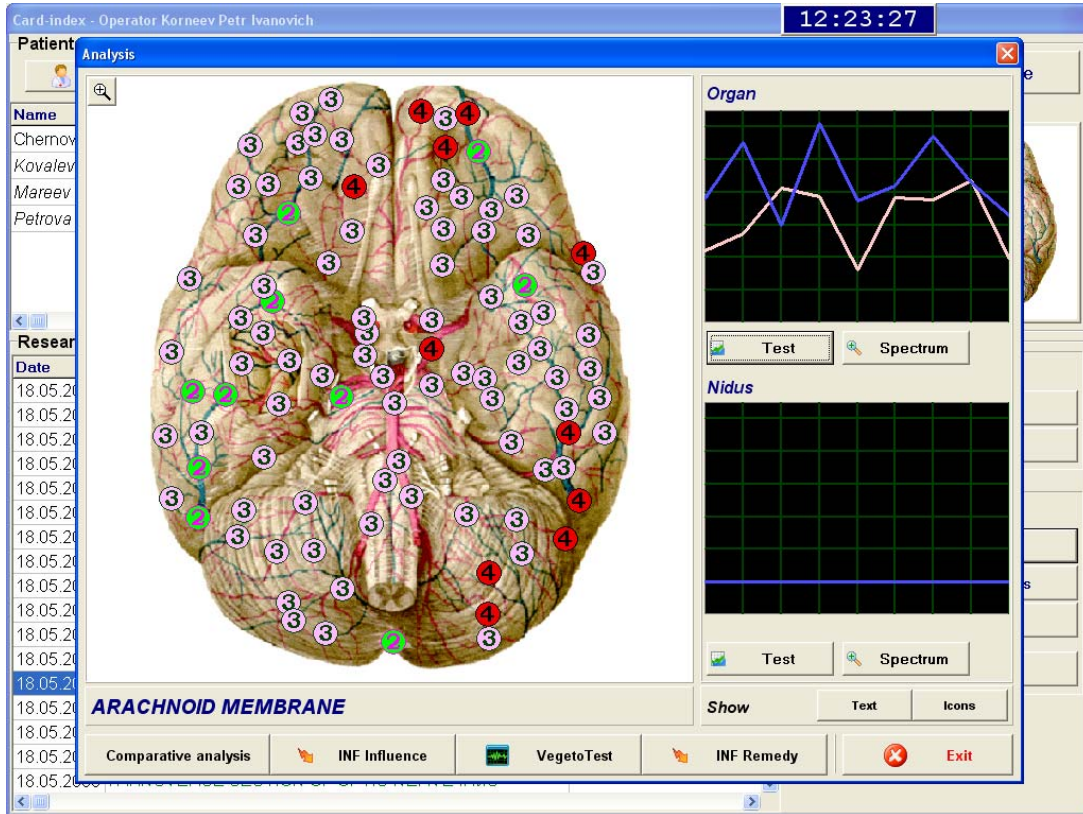


Figure 49.

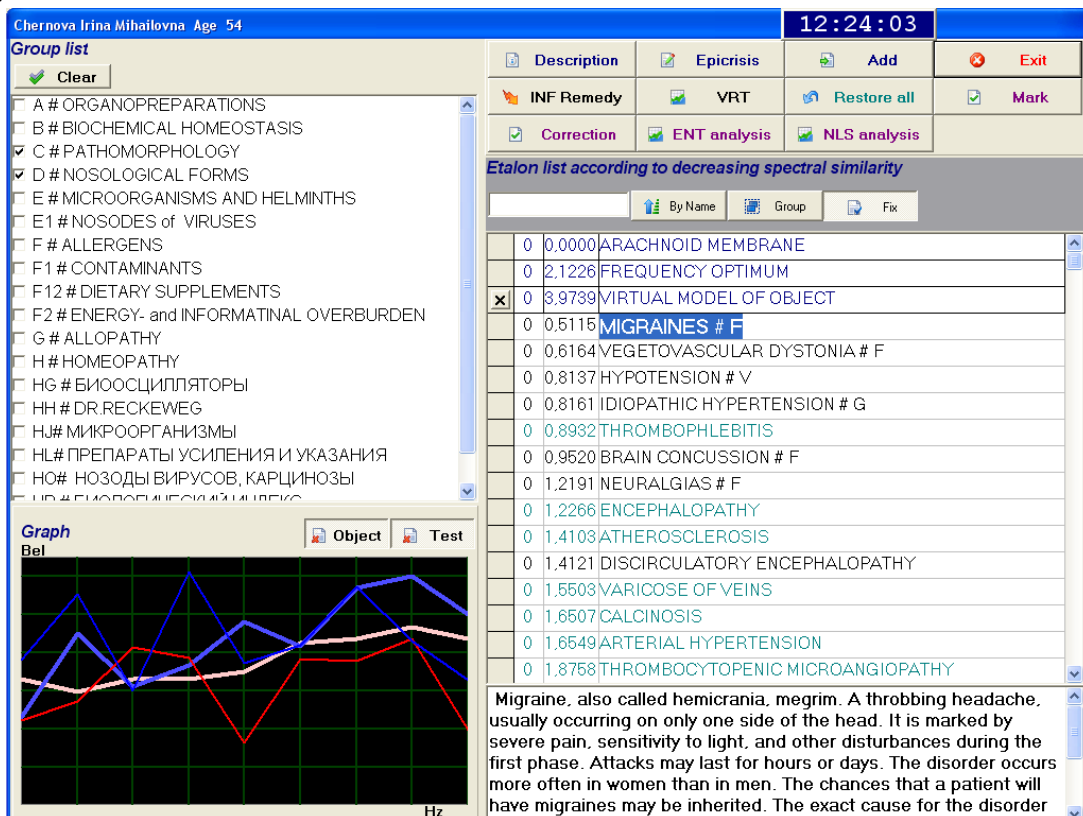
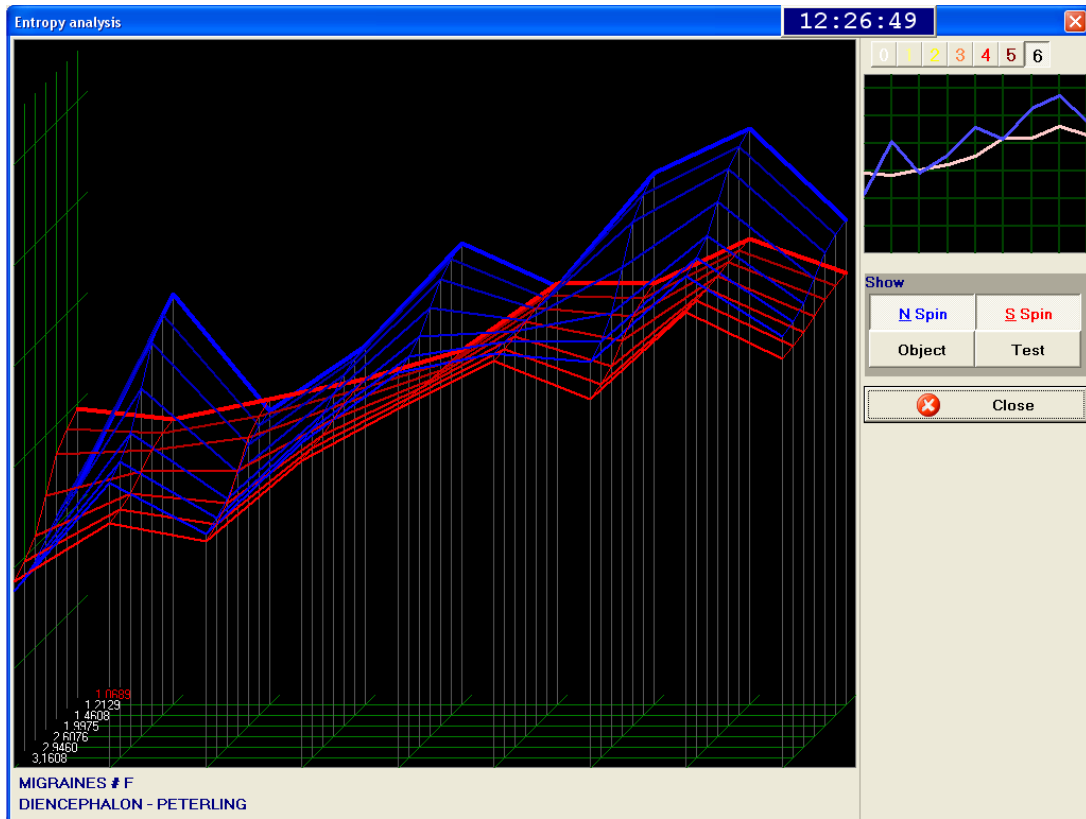


Figure 50.



Chapter 9. Diseases of tactile organs

On the shown virtual model of eyeball (fig.51), which was obtained as test result, we can distinctly see the signs of ciliar muscle pathology, which is the main reason of disturbed accommodation. From the diagnoses offered by the program the most probable one is "short-sightedness" because this diagnosis has the coefficient 0,1689. However the diagnoses "far-sightedness" and "cataract" with the coefficients 0,2092 and 0,3322 accordingly (fig.52) belong to the group of probable diagnoses, too. In a similar situation, to choose the diagnoses, the doctor should, first of all, base himself on the complaints of the patient with taking into account the data of ophthalmometry and of instrumental methods of examination. The short-sightedness diagnosis can be confirmed by the complaints to bad vision in the distance, impossibility to see bottom lines or all the lines of the alphabetic table; the examination of the eyeground can show the presence of myopic cones having this or that degree of manifestation. And, on the contrary, if having far-sightedness, the patient has difficulties when looking at the subject from a short distance, and for the cataract is typical the occurrence of "veil" before eyes, of "dimmed" subjects, the occurrence of second contours when looking at luminous objects. Hence, to the epicrisis should be sent the diagnoses which corresponds to the clinical picture in the given situation and is confirmed by the data of entropy analysis (fig.53).

Figure 51.

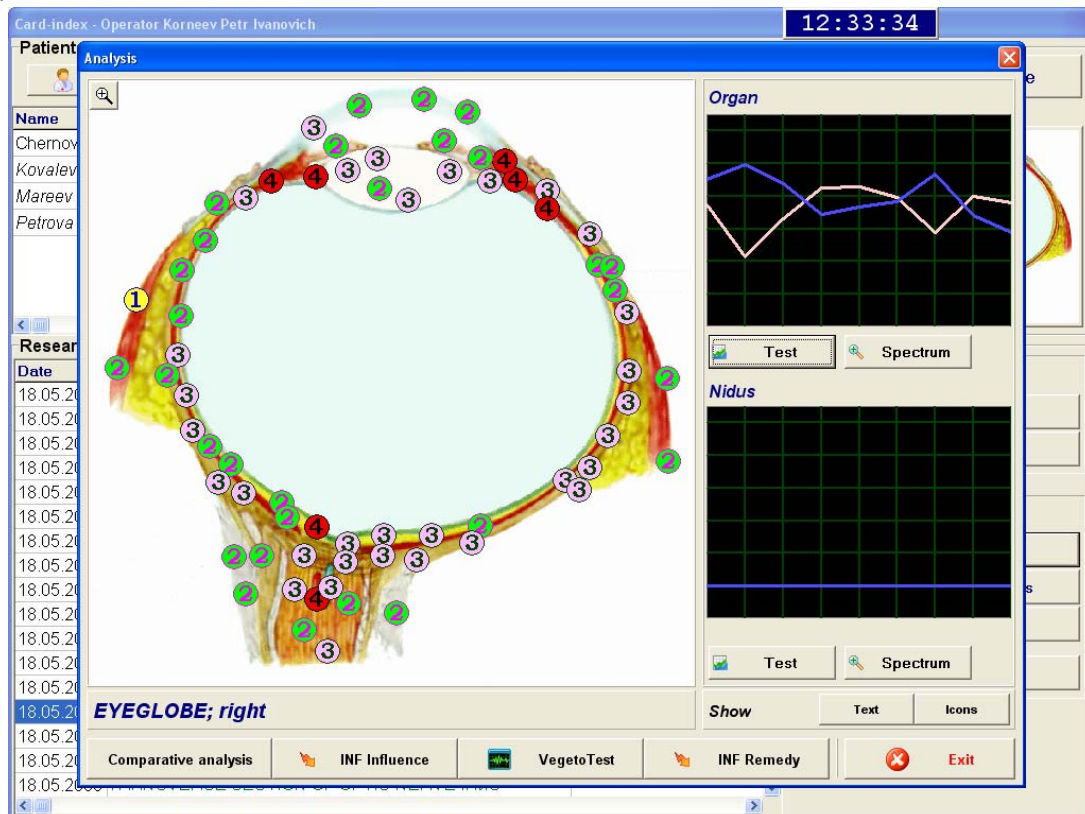


Figure 52.

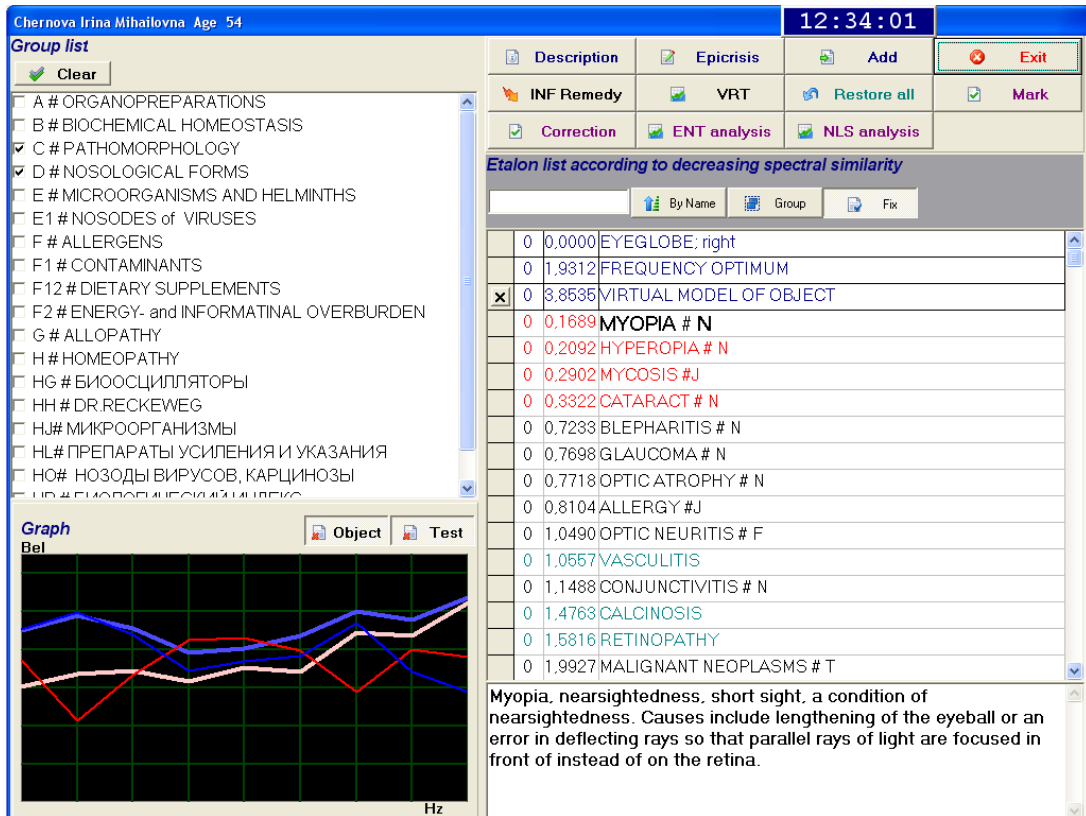
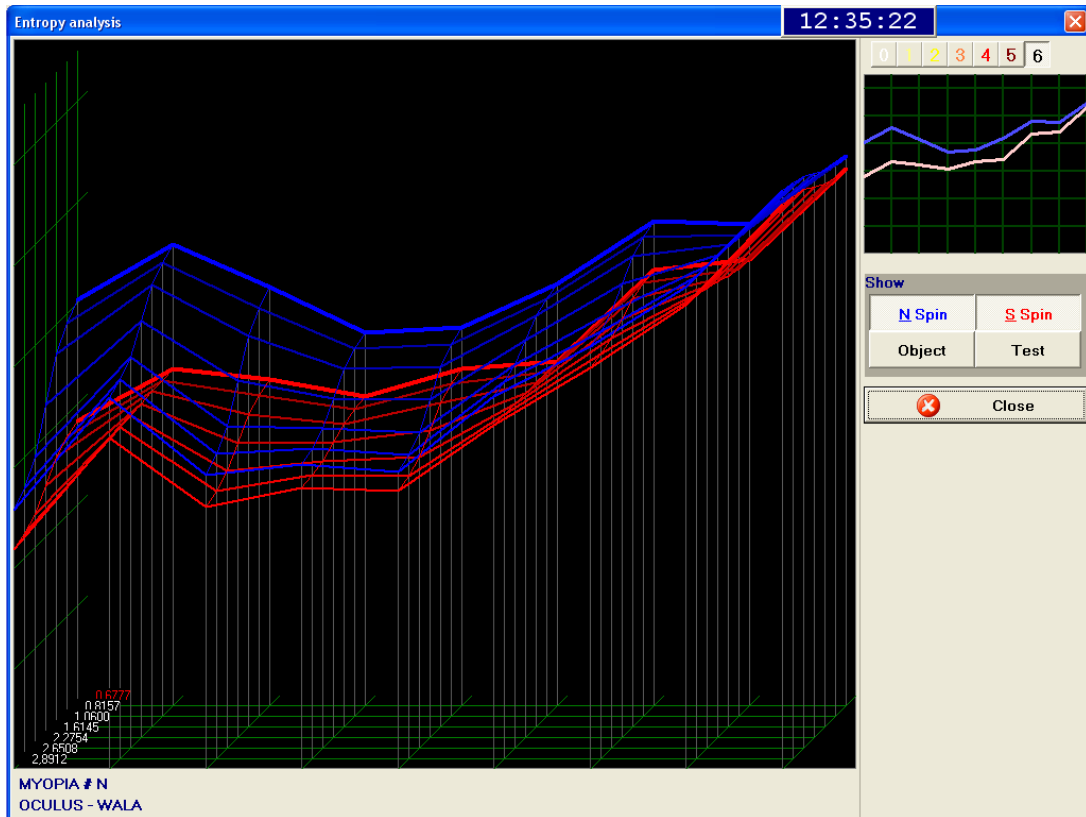


Figure 53.



On the shown cartogram of an ear we can see, that the markers indicating the presence of an expressed pathology, (fig.54), are placed in the cavity of eustachian tube. The diagnosis “otitis” the program has offered, most probably concerns to the condition of the internal ear which corresponds to the markers “3” and “5”. The reason of ear illness can be overcooling and infectious disease the patient has had. For an

acute otitis is typically the presence of strong pains on the sick side, most having a shooting character, enhanced temperature of body, general indisposition; the reduced hearing is possible, too. The otoscopy can reveal hyperemia and oedematose in the area of eardrum; purulent and ear-wax-purulent secretion can be visible, too. The internal otitis, as a rule, can be accompanied by inflammation of eustachian tube, as shown in figure 54; the pain symptoms can be strengthened when swallowing, and the feeling of “blocked” ear is possible, too. If the signs mentioned above are present, the otitis diagnosis is doubtless and it can be sent to the epicrisis; thereat a consultation of corresponding specialist should be recommended with the purpose to conduct an adequate treatment. If the clinical picture of otitis gives no evidence or is not present at all, we can conclude that the process has got its chronic form or its early, pre-clinical stages; then an additional examination should be recommended with using the possibilities of the section “Recommendations” of the epicrisis.

Figure 54.

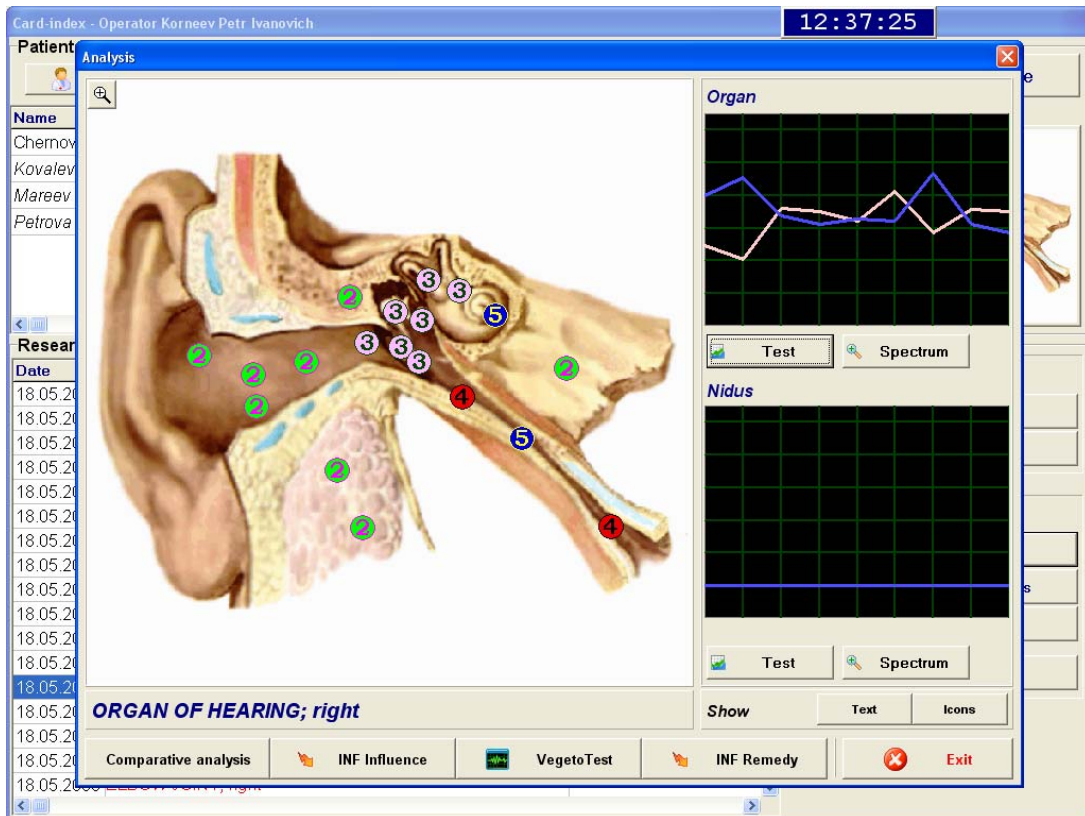


Figure 55.

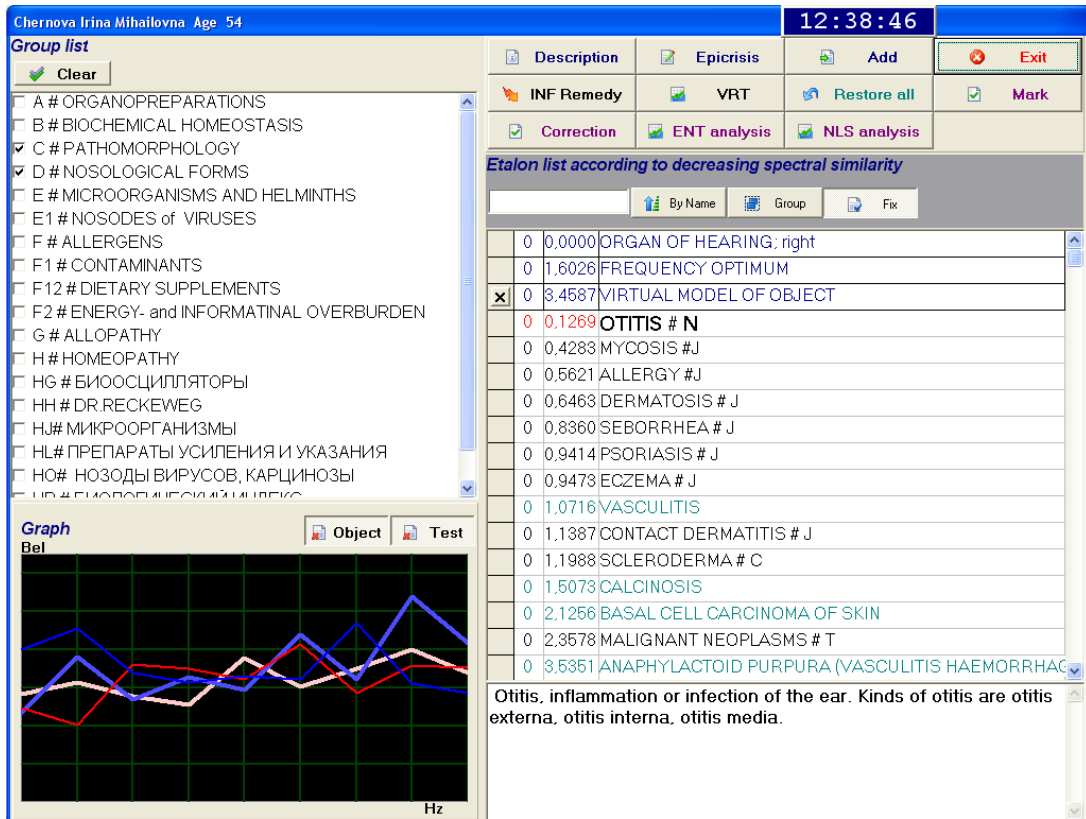
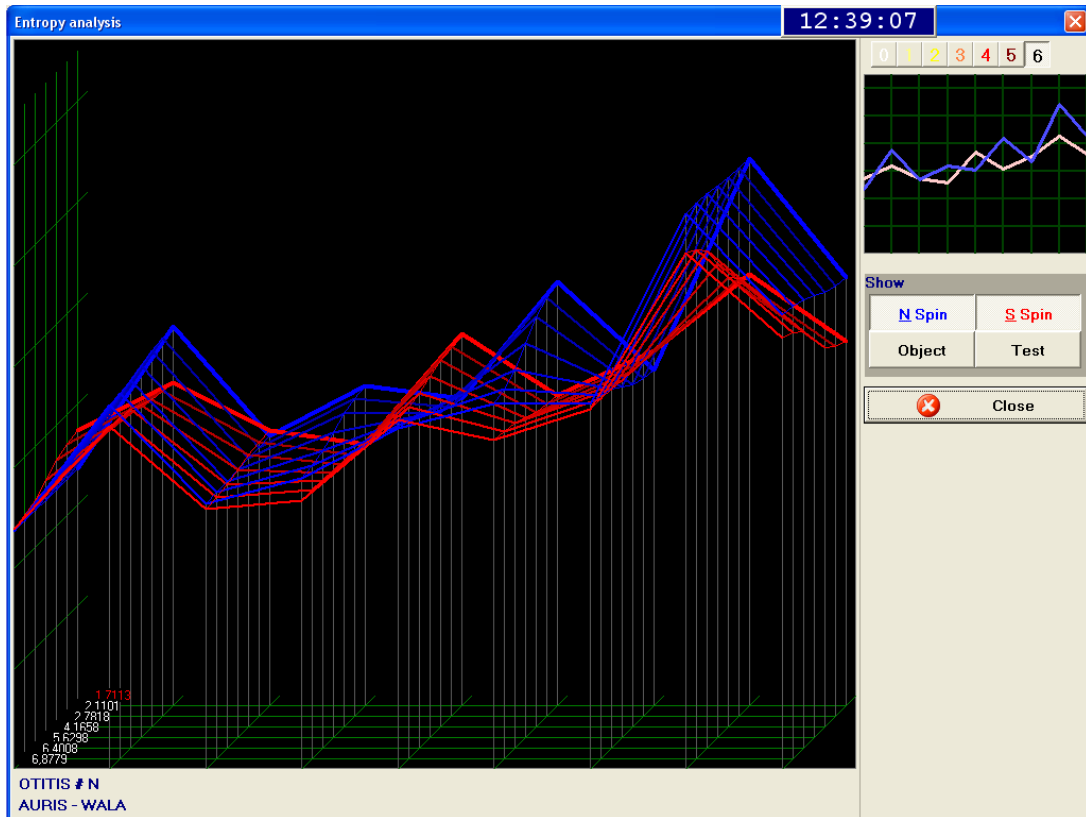


Figure 56.



Chapter 10. Locomotor system diseases

Diseases of locomotor system, in particular of joints, are accompanied, as a rule, by local pains and restricted mobility caused by inflammatory reaction, connected, first of all, with depositing of salts. Pathological markers with the polarity “4” and “5” on the given cartogram, which are situated in the cavity of the joint, can indicate a pathological process in form of depositing of salts (fig.60), if the corresponding symptomatic is present. In case of degenerated inflammatory changes of joints, in the process are also involved paraarticular muscle tissues and tendons; it corresponds to the markers "4" located on external side of the elbow joint, which is shown on the cartogram.

Figure 57

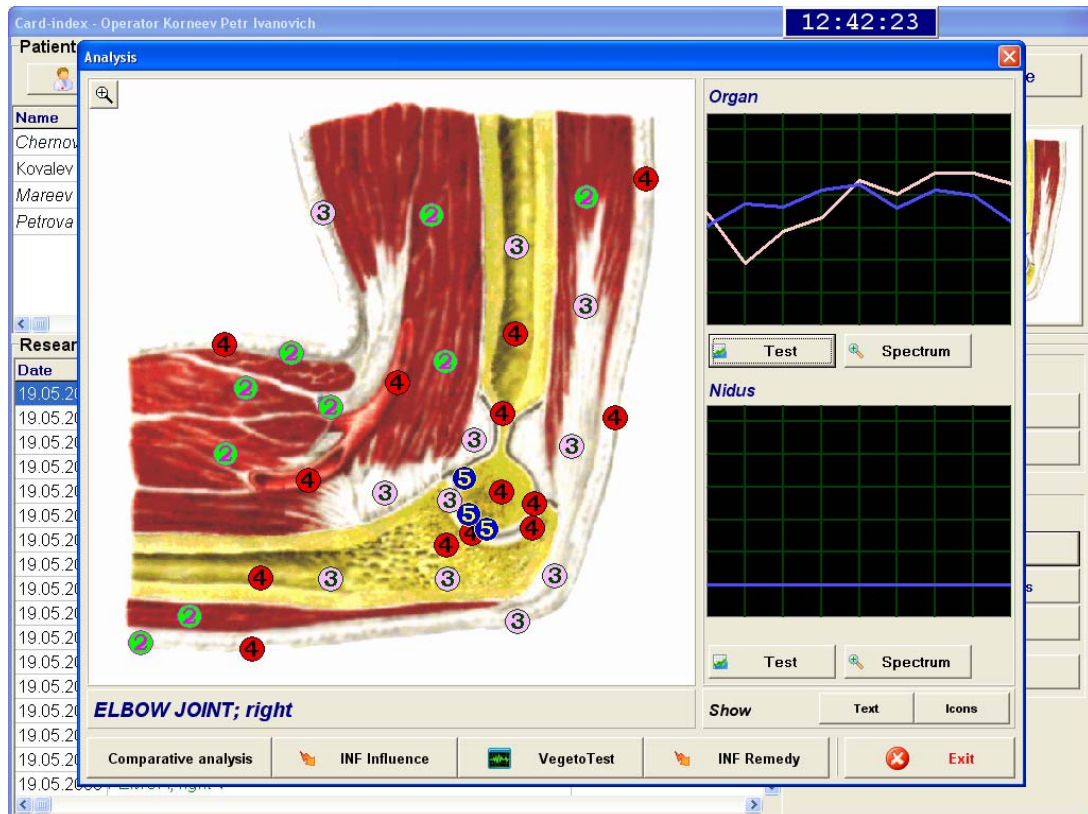


Figure 58.

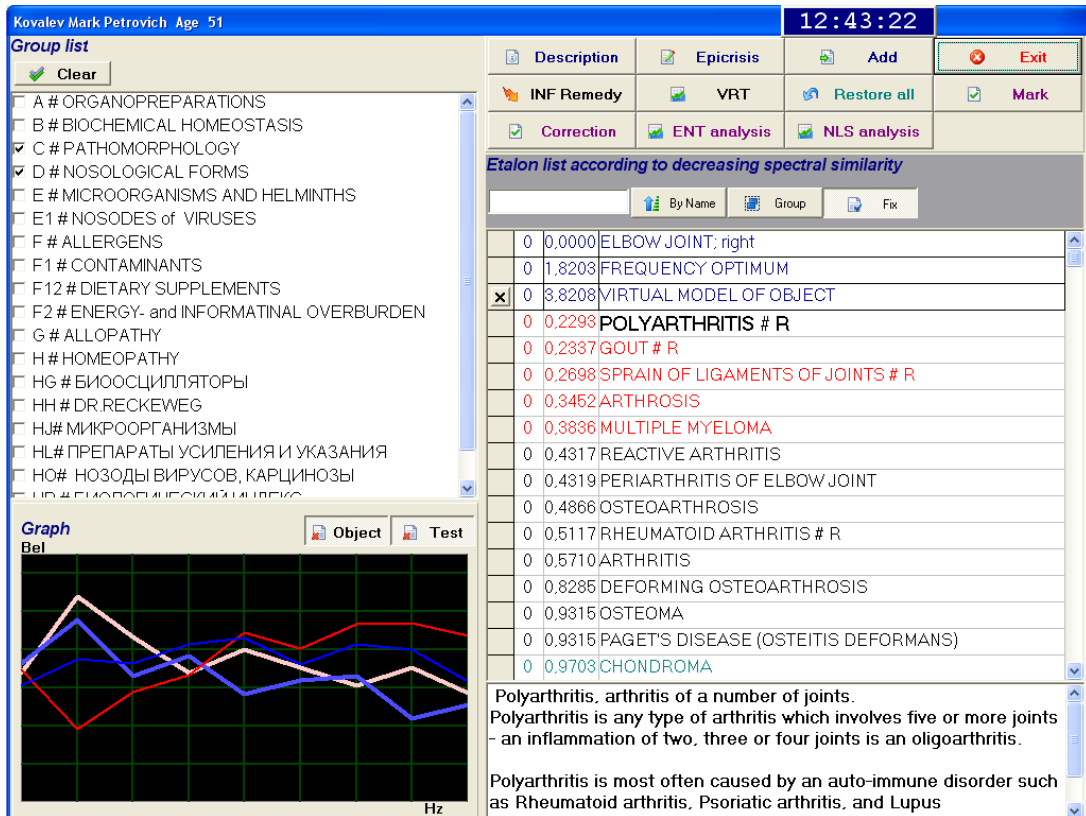
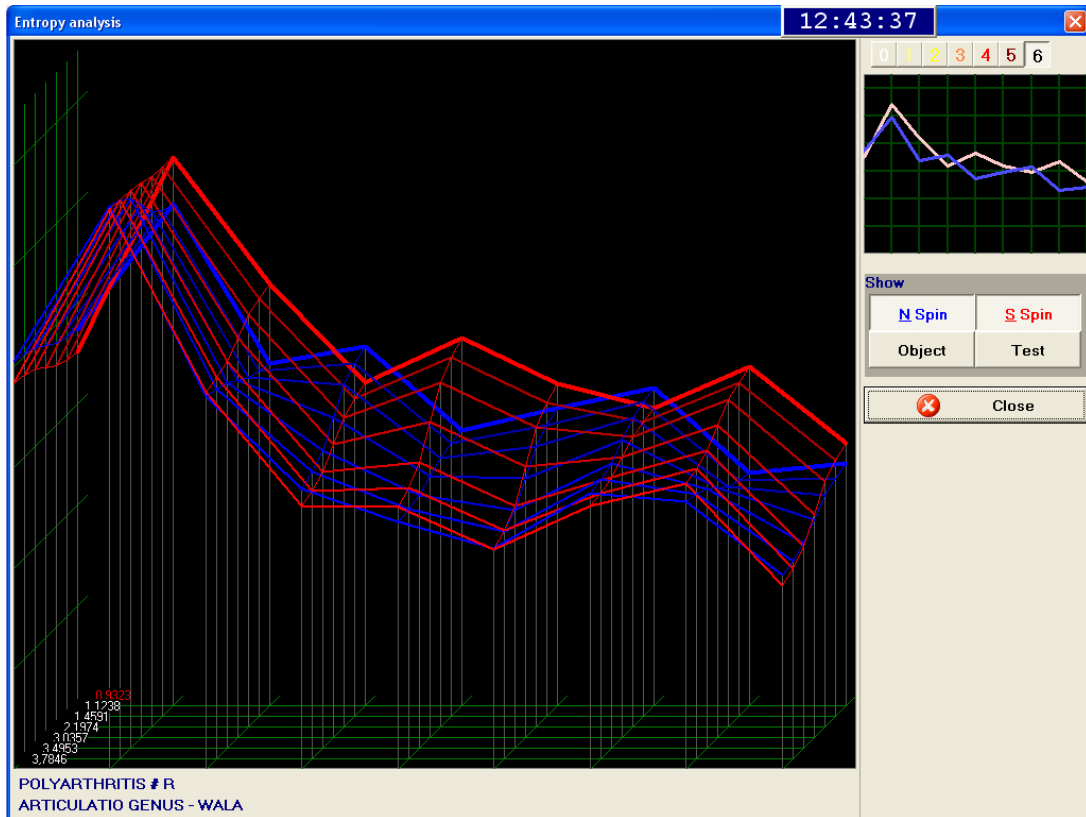


Figure 59.



Disease of joints are frequently accompanied by inflammatory reaction of surrounding tissues - tendons and muscles. On the cartogram showing the test results of shoulder joint (fig.60) is visible, that the markers designating pathological changes are located not only in the cavity of joint, but also in the area around it. The presence of inflammatory reaction of paraarticular tissues is confirmed by the conclusion

of the program shown in figure 61. The shoulder-and shoulder-blade peri-arthritis is combined with degenerated inflammatory changes of shoulder joint and is characterized by inflammatory reaction of tendons and muscles located around of the joint. For the shoulder-and shoulder-blade peri-arthritis the painfulness in the area of joint is typical; the pain grows when moving. Swelling and hyperemia of integuments in the area of inflammation can be visible. Shoulder-and shoulder-blade peri-arthritis also can be an independent disease. In such a case the presence of accompanying pathology of the joint should be excluded (radiography should be done). To exclude the rheumatic nature of pathology, a consultation of rheumatologist and corresponding additional examinations should be recommended with using of the possibilities of the section "Recommendations" of the epicrisis.

Figure 60.

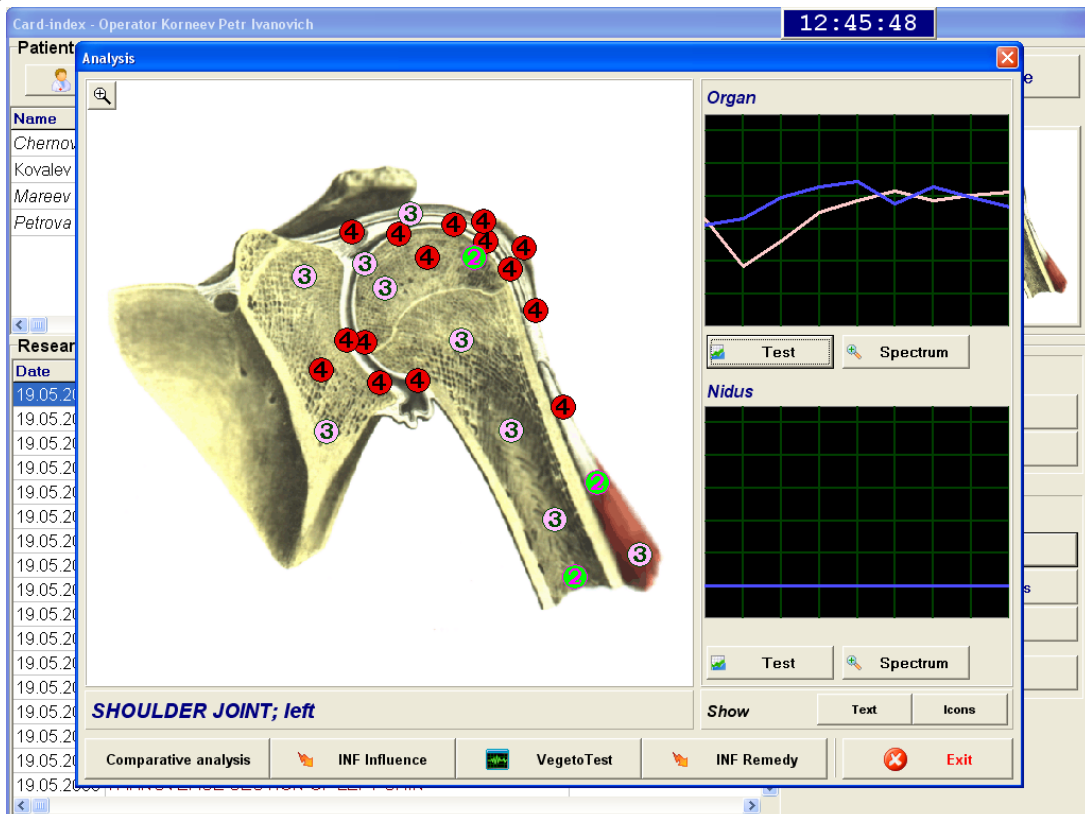


Figure 61.

Kovalev Mark Petrovich Age 51 12:46:47

Group list

Clear

- A # ORGANOPREPARATIONS
- B # BIOCHEMICAL HOMEOSTASIS
- C # PATHOMORPHOLOGY
- D # NOSOLOGICAL FORMS
- E # MICROORGANISMS AND HELMINTHS
- E1 # NOSODES of VIRUSES
- F # ALLERGENS
- F1 # CONTAMINANTS
- F12 # DIETARY SUPPLEMENTS
- F2 # ENERGY- and INFORMATINAL OVERBURDEN
- G # ALLOPATHY
- H # HOMEOPATHY
- HG # БИООСЦИЛЛЯТОРЫ
- HH # DR. RECKEWEG
- HJ# МИКРООРГАНИЗМЫ
- HL# ПРЕПАРАТЫ УСИЛЕНИЯ И УКАЗАНИЯ
- HO# НОЗОДЫ ВИРУСОВ, КАРЦИНОЗЫ
- HU# БИОСОВРЕМЕННЫЕ ИЛИ ИДЕОС...

Graph

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Object Test

Description	Epicrisis	Add	Exit
INF Remedy	VRT	Restore all	Mark
Correction	ENT analysis	NLS analysis	

Etalon list according to decreasing spectral similarity

By Name Group Fix

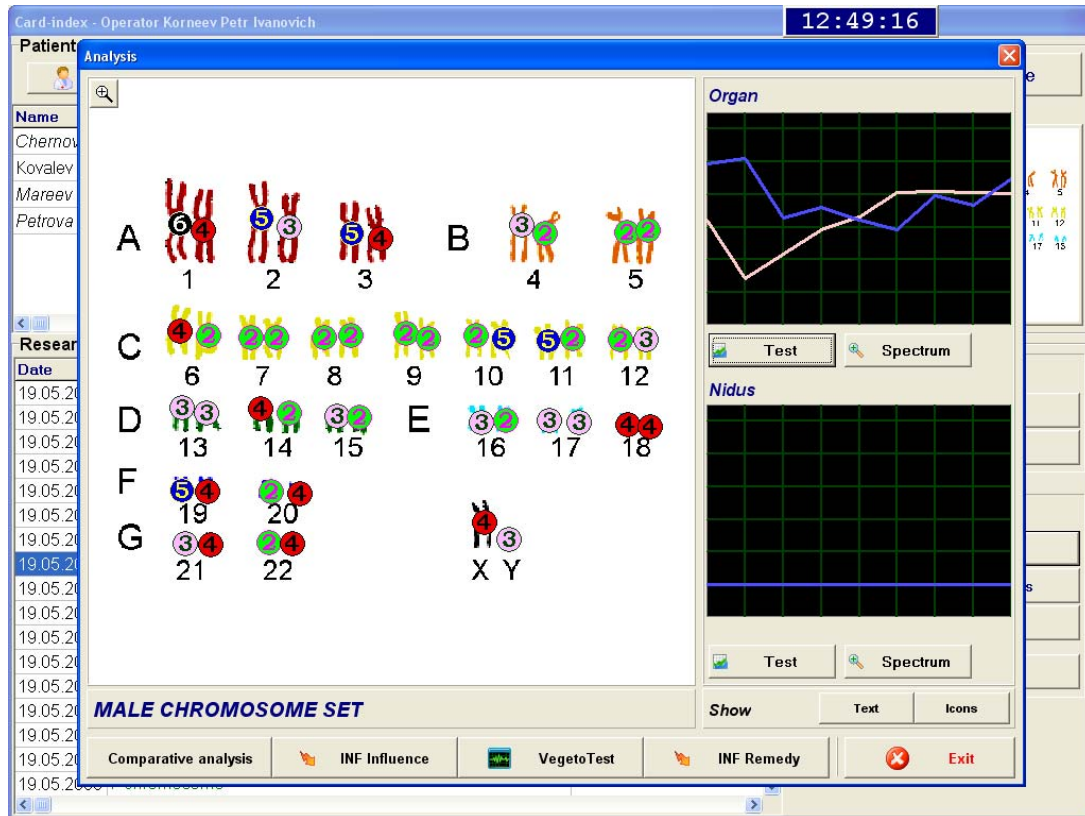
0	0.0000	SHOULDER JOINT; left
0	1.7192	FREQUENCY OPTIMUM
x	3.7346	VIRTUAL MODEL OF OBJECT
0	0.1587	HUMEROSCAPULAR PERIARTHRITIS # R
0	0.2071	POLYARTHRITIS # R
0	0.2150	REACTIVE ARTHRITIS
0	0.2679	SPRAIN OF LIGAMENTS OF JOINTS # R
0	0.2990	GOUT # R
0	0.3017	RHEUMATOID ARTHRITIS # R
0	0.3060	ARTHRITIS
0	0.4491	ARTHRITIS
0	0.4737	OSTEOARTHRITIS
0	0.7908	OSTEOMA
0	0.7908	PAGET'S DISEASE (OSTEITIS DEFORMANS)
0	0.8483	CHONDROMA
0	0.8729	DEFORMING OSTEOARTHRITIS
0	0.9773	FIBROMATOSIS

"Humeroscapular periartthritis" (HPA) was first described by Duplay in 1872 and is to be understood as a syndrome whose typical symptoms are pain and partial or total stiffness of the shoulder ("ankylosing" HPA). This term includes all regressive and reactive affections occurring in the region of the shoulder joint proper (Refish and van Laack, 1985), and has meanwhile become a

Chapter 11. Chromosomal diseases

On the given cartogram (fig. 62) is shown a chromosomal complement of male organism. Chromosomes are arranged in pairs and contain genetic information. When conducting the test, to each chromosome will be given the marker, which corresponds to manifestation degree of genetic deviations. As the given section of the program is in the stage of development and does not contain any conclusions, in case of revealing the signs of significant deviation from the norm in patient (markers with polarity "5" and "6"), the consultation of genetics doctor should be recommended.

Figure 62.



Conclusion

The given above recommendations about the using of the hardware-software complex «DIANEL 11S-iON» and of the programs Dianel Pro have been formed little by little and are based on the experience of practical application and on numerous opinions of the doctors working with the given equipment. It should be noted, that the work with the program Dianel Pro needs a complex approach to each revealing of disease; the conclusions obtained as results of the work with the hardware-software complex «DIANEL 11S-iON» can be corrected by physician-operator according to the clinical-anamnestic data. The extensive database of all possible examinations contained in the section "Epicrisis" enables to recommend practically each kind of examination or labor probe; it is necessary for more precise definition and correction of the revealed disease, and the quality of the work with patients can be enhanced considerably.

ATTENTION! The present document is not a medicine textbook and it can not be used for teaching the students of medical HIGH SCHOOLS and medical schools. The above-stated information is a kind of recommendation containing rules and procedures for working with the hardware-software complex « DIANEL 11S-iON »

Yours faithfully,
Collective of "Center of Information Technologies "NELIAN" LLC

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