

Results of the blind experiment on assessment of efficiency of computer-aided diagnostic system Dynamics-100

Computer-aided diagnostic system Dynamics-100 is a portative remote complex with realized recent developments in microelectronics and software-hardware equipment for processing of electrophysiological information. The complex has been developed on the basis of a principally new method of discrete dynamic analysis of the electrocardiosignal biorhythmological parameter complex.

The research was conducted at the direction of the first Vice-governor of Saint-Petersburg V. N. Shcherbakov according to the Decision of the New Medical Equipment Committee of the Ministry of Health of the Russian Federation (protocol # 12 as of October 03, 1996).

The blind experiment was conducted in the period from September 01, 1997 till September 08, 1997 in Saint-Petersburg City Oncologic Dispensary in the departments of general surgery and gynaecology.

The patients were examined without a preliminary anamnesis, irrespective of having any concurrent diseases and applied treatment methods.

Electrocardiosignal registration was performed by the standard lead for 5 minutes in lying or seated positions.

The results of diagnostics in oncology patients by software-hardware complex Dynamics-100 were compared with a final diagnosis verified after surgical treatment by histologic examination of the extirpated tissue.

52 patients was examined during the experiment.

Probability of the correct diagnostics is 89%.

G. M. Manikhas

Chief doctor of the City Oncologic Dispensary

/Signature/

October 10, 1997

/Round stamp/: Health Committee of Saint-Petersburg Mayor`s Office

E. Ya. Buzov

Director of "Dynamics" Center

/Signature/

October 20, 1997

/Round stamp with the coat of arms of the USSR/:

State Committee of the USSR on Science and Technology

Leningrad innovation and research medical and biological center Dynamika

**Results of the blind experiment on assessment of efficiency of computer-aided
diagnostic system Dynamics-100
(Supplementary protocol as of October 20, 1997)**

Computer-aided diagnostic system “Dynamics-100” is a portative remote complex with realized recent developments in microelectronics and software-hardware equipment for processing of electrophysiological information. The complex has been developed on the basis of a principally new method of discrete dynamic analysis of the electrocardiosignal biorhythmological parameter complex.

The research was conducted at the direction of the first Vice-governor of Saint-Petersburg V. N. Shcherbakov according to the Decision of the New Medical Equipment Committee of the Ministry of Health of the Russian Federation (Report # 12 as of October 03, 1996) as agreed with the Chairman of Saint-Petersburg Health Committee.

The blind experiment was conducted in the period from November 03, 1997 till November 11, 1997 in Saint-Petersburg City Oncologic Dispensary.

47 patients referred by the polyclinic department doctors were examined.

The patients were examined without a preliminary anamnesis, irrespective of having any concurrent diseases and applied treatment methods.

Electrocardiosignal registration was performed by the standard lead for 5 minutes in lying or seated positions.

The results of diagnostics in oncology patients by software-hardware complex Dynamics-100 were compared with a final diagnosis established by the doctors of the Dispensary.

The results of the examination are summarized in the table below:

Clinical diagnosis by the Oncology Dispensary	Diagnosis by Dynamics-100 system
Oncology 24	Oncology 30
Chronic diseases 12	Oncological disease risk 12
Absence of oncological diseases 11	Absence of oncological diseases 5

G. M. Manikhas

Chief doctor of the City Oncologic Dispensary

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December 03, 1997

/Round stamp/: Health Committee of Saint-Petersburg Mayor`s Office

E. Ya. Buzov

Director of “Dynamics” Center

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December 03, 1997

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