Therapeutic Efficiency Of A Combined Use Of Low-Intensity Laser Radiation And Actovegin In Gastroduodenal Ulcers With Inhibited Cicatrix Formation
[Article in Russian]
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AIM: To validate use of intravenous laser blood irradiation (ILBI) combined with actovegin administration in indolent gastroduodenal ulcers.

MATERIAL AND METHODS: Modern endoscopic, morphological, device, biochemical techniques and radioimmunoassay were used in examination of 92 patients with indolent gastroduodenal ulcers aged 24 to 69 years. ILBI plus actovegin was given in failure of standard medicinal therapy.

RESULTS: ILBI plus actovegin combination produced marked analgetic, anti-inflammatory and detoxication effects. Favourable trends were observed in the composition of gastric mucus, detoxication, reparative and metabolic processes in the gastroduodenal mucosa, neurohumoral regulation.

CONCLUSION: Combination of ILBI with actovegin proved highly effective in indolent gastroduodenal ulcers.

Effect Of Impulse Infrared Laser Radiation On Bioenergetic Metabolism In Gastric Mucosa In Patients With Gastroduodenal Ulcer
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Gastric mucosa and blood plasma were studied in 82 patients with gastroduodenal ulcer for content of adenylic nucleotides (AMP, ADP and ATP), histamine, amino acids. It was found that the above nucleotides occurred in the examinees in subnormal quantities. The necessary substrates, aspartate in particular, were deficient. This may lead to impairment of biosynthetic processes, to imbalance of defense factors. Photon therapy of gastroduodenal ulcer corrects bioenergetic metabolism in gastric mucosa thus producing a marked therapeutic effect.

Different Approaches To Laser Therapy Of Gastric And Duodenal Ulcers
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Insufficiant effectiveness of modem pharmacological means of duodenal ulcer (DU) treatment, increasing of complications and relapses stimulates a search of new effective methods. We used different methods of low intensive laser radiation: laser acupuncture (LA), transdermic, infra- and overvascular methods. 280 patients with different forms and courses of ulcer disease (UD) were examined in hospital and polyclinic. The following examination methods were used: roentgenologicai, fibrogastroscoimages with determination of H pylori, electrogastromiographic, intragastric pH-metry, perioxidate lipoid oxidation, vegetative status determination. We worked out criteria of selection of patients with UD for various treatment methods. In non-complicated and first-revealed forms of DU monotherapy by LA of skin points of activation by helium-neon laser (HNL) ULF-01 "Yagoda" and LG-75 with wave length equal to 0,63 mm was used in comparison with traditional medicamental therapy (first group). The second group were patients with recurring of DU and accompaning diseases of digestive organs, they were treated by infrared laser "Uzor" and "Mustang" with wave length of 0,89 mm skin acupuncture ac-cording to our method in

comparison with traditional medicamental therapy. In the third group of patients with long-term non-scamng DU and double ulcers the treatment was ful-filled by intra- and overvascular irradiation by HNL "Alok-1" and "Mustang". Good direct and far results were observed. The effectiveness of treatment in the first group was 92%, in the second - 88%, in the third - 76%.

Laser Therapy In Complex Treatment Of Gastroduodenal Ulcer

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The demand of a more effective treatment of gastroduodenal ulcer makes it necessary to combine various techniques. The last few years showed that laser therapy was a widely ac-knowledged means for treatment of ulcerative disease of the stomach and duodenum. Starting from 1985 we have treated 359 patients using our own techniques. In the group there were 153 female and 206 male at the age from 19 to 67. All the patients had stomach ulcer or duodenum when checked by gastroduodenoscopy, 21 patient had "mirror" ulcer of duodenum. Along with traditional methods of complex treatment we used low-power lasers on arcenide gallium IR-radiation ("Uzor" and "Mustang" apparatus, with the wave length of 0,89 nm, frequency of 80-3000 Hz, and pulse power of 3 to 10 W). The treatment was carried out from the moment the ulcer had been identified and in the case of bleeding-on the day it had been stopped in case of stomach ulcer-after gistology test results. Daily radiation was performed on biologically active points and on the most pain-ful points. The number of sessions was 8 to 12 depending on the size of ulcer. As to 17 patients with nonseaming callous ulcer treating was by means of laser on copper vapour. The average bedding day in the group was 17±2,76 which made 1/3 less compared to that in the control group. So, we can draw a conclusion that complex method in treatment of gastroduodenal ulcer using laser therapy is a promising technique besides it can be used both in hospital and in out patient units.

Laser Therapy In Complex Treatment Of Duodenal Ulcer

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Out-Patients Clinic of the Chief Directorate of Home Affairs, St. Petersburg, RussiaThe efficiency of laser therapy in complex treatment of duodenal ulcer has been evaluated for 110 patients. Most patients (71,4 percent) were people under 40 years of age with chronic ulcerous process (89,6 percent), pronounced pain, and an ulcerous defect measur-ing 1,0 by 0,7-0,8 cm. A soft infrared laser was used. It was applied in pulsed operation at 90 Hz, 20 mW. The duration of one exposure was 4 minutes. Exposure zones varied every day: projection of the ulcer on the front abdominal wall and the point under xiphoid process of sternum were alternated with paravertebral zones along intercostal areas from ??6 to Th9 symmetrically on both sides. The cource of treatment included 10 daily pro-cedures. The technique was suggested by the Department of Physiotherapy and Balneol-ogy of St. Petersburg Medical Academy of Post-Graduate Education. The treatment effi-ciency was evaluated by means of fibrogastroduodenoscopy. The formation of paunch on the site of ulcer defect as a result of laser therapy was observed for 64 patients (58,2 percent); 18 patients (16,4 percent) showed a decrease of the ulcer defect by 80 percent. Pain was usually eliminated after the third or fourth procedure. The results obtained seem to indicate that the technique employed is quite efficient and can be used in complex treatment of duodenal ulcer.

Magnetolaser Therapy Of Ulcer Bulbus Duodenal Disease (Aspects Of Immunology)

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The patients with ulcer of bulbous duodenal were examined on index of cellular and humoral immunity after the treatment with the help of semiconductor laser of near infra-red- spectrum for choosing the right time of setting and the dose of laser therapy as the immunotherapy. The blood of 20 patients with ulcer bulbous duodenal was analyzed before and after the laser-therapy on the base of threefold therapy (blocs of proton pump + metronidazol + amoxycillin).The following indices were determined: the level of T-lymphocytes and their subpopulations, B-lymphocytes, Ig A, G, M and leukocytes, lymphocytes, seg-mental neutrophyles of peripheral blood. The laser therapy was conducted by transcutaneous method with the help of "Uley-2k" (wavelength - 0,89 nm, pulse regime) with magnetic nozzle MN-1-055 (32 mT). Before the treatment most of the patients had the low indices of leukocytes and lymphocytes, CD-4, B-lymphocytes, Ig A, M, G with in-crease CD-8, T-lymphocytes active forms (CD-4/ CD-8 = 3,75). After two weeks of com-plex treatment with the help of magnetic laser therapy there was a cicatrizing effect of ulcer defect most of 18 patients (90%). The laboratory results are: indices of leukocytes of blood became normal; lymphocytes and segmental neutrophyles increased with activation their function; T-lymphocytes, CD-4, Ig A, M - increased: CD-8, active forms of T-lymphocytes, B-lymphocytes became normal. Remained the low level of Ig G. So the complex treatment of ulcer of bulbous duodenal disease with the help of magnetolaser therapy brings improved tendency of disease, the fast ulcer cicatrize and immunomodulation effect. Therefore it must be applied on early stage of disease.

Modern Approaches To Laser Therapy Of Gastric And Duodenal Ulcer

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Lately various methods of laser therapy of gastric (GU) and duodenal (DU) ulcer such as transendoscoimages, intravascular, transdermic, laser acupuncture (LA) are widely used to-gether with medicaments therapy. At the same time there are no clear criteria of patient's selection for every treatment method. The aim of this study is to examine effectiveness of various methods of laser influence on patients with relapsing form of GU and DU. 262 pa-tients with different forms and courses of ulcer disease have been observed. The state ofantioxidant and immune systems and vegetative status have been studied by roentge-nological, fibrogastro duodenoscoimages, clectrogastromiographic and intragastric pH - metre methods. In the I group of patients with non-complicated and first revealed forms of DU monotherapy by LA according to our method of skin points activation by helium-neon la-ser (HNL) ULF-01 "Yagoda" and LG-75 with wavelength equal to 0,63 mm, 10 seances. The II group of patients with long-term non-scarring GU and DU have treated by intra-vascular blood irradiation by HNL "ALOK-I" up to 30 min,10 seances together with the use of cholinolytes and antacid's. The III group of patients with recurring DU and pathol-ogy of gastroduodenal tract and cardiovascular system have been treated by infrared laser "UZOR" skin acupuncture to epigastric area and by supravenous acupuncture to ulnar flexion according to our method, 10 seances. Good direct and far results of LA method both in hospital and polyclinic. The effectiveness of treatment in the I group is 92,3%, II-78%, III - 88%.