

TREATMENT OF PEPTIC ULCER DISEASE PATIENTS WITH THE APPARATUS "ELEKTRONIKA-EHF"

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The treatment of peptic ulcer disease is a fundamental problem in modern gastroenterology. The presence of a large arsenal of anti-ulcerous preparations and the continuous appearance of new pathogenetic drugs has not improved dramatically the results of the medical treatment. In the recent years the medical action of physical factors - electromagnetic radiation of extremely high frequencies (EHF) has been used in the treatment of peptic ulcer disease. EHF-therapy recovers the balance between factors of aggression and defence that have the greatest importance for ulcer formation. Паслававска et al. report an increase of the level of antioxygenic status after EHF-therapy which leads to a blockage of the system of peroxide oxidation and improves the trophic of gastroduodenal mucosa. The aim of this study was to evaluate the effect of the new physical method of treatment with the apparatus "Elektronika-EHF" on ulcer healing; to determine the influence of EHF-therapy on gastric acid secretion and the presence of *Helicobacter pylori* (HP); to compare the results from EHF-treatment of peptic ulcer patients with those of medical treatment.

EHF-therapy was carried out in 50 patients with uncomplicated peptic ulcer disease (30 males and 20 females) of average age 41,3. Thirty-eight patients were with duodenal ulcer (average age - 41,1) and 12 - with stomach ulcer (average age - 44,6). The treatment was held in the Clinic of Gastroenterology and in outpatients and included 15 seances with duration of 30 min influencing directly on the reflexogenic zone of the stomach and duodenum with electromagnetic radiation of EHF. The acceptance of antiulcerous preparations was excluded. Endoscopy was performed before and after the treatment and complete and incomplete healing of the ulcer was reported either persistence of the ulcer (without effect). In 10 patients a brush biopsy material from the antrum was investigated for HP before and after the treatment. In 10 patients gastric acid secretion was evaluated by pentagastrinic test before and after EHF-therapy. In a group of 10 patients only a treatment with blockers of gastric acid secretion was carried out (Cimetidin-1,0 g daily) and another 10 patients underwent a double-blind placebo trial with the apparatus.

The effect of EHF-therapy on duodenal and stomach ulcer healing is presented on Figs. 1 and 2.

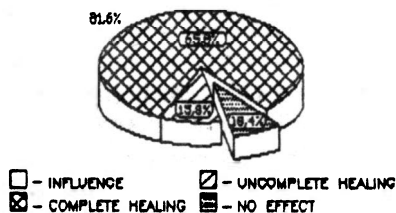


FIG. 1

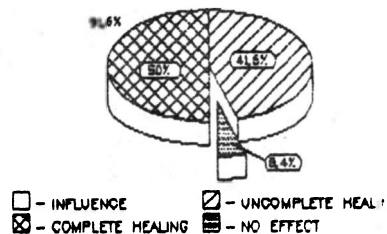


FIG. 2

EHF THERAPY COMPARED WITH MEDICAL TREATMENT

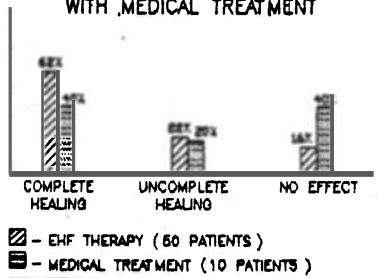


FIG. 3

The treatment resulted in complete or incomplete healing of the ulcer in 84% of the patients. Without effect were 16% of the patients. Our results are similar to those of other authors. Пасявскиѹ et al. report an healing of the ulcer in 95% of the patients after 22 seances. In 60% of the patients pain was affected on the 5th-6th seance but in 40% it persisted although the ulcer healed.

This may be explained by the per-

sistence of the inflammatory process. No side effects were observed. In 5 patients HP infestation was found. After EHF-therapy in 3 of them HP has not been observed and it was associated with complete healing of the ulcer. In the other two patients HP infestation persisted and in both there was no effect of EHF-therapy. Бак апе В et al. report an decrease of HP infestation in 56%. Similarly to other authors we did not establish significant changes in gastric acid secretion. The basal acid output decreased averagely with 2,02 mEq/1/h and maximal acid output - with 3,7 mEq/1/h. These results compel to look for other mechanisms of influence of EHF-therapy, that is improvement of the trophic and microcirculation of gastric and duodenal mucosae. All the patients from the placebo group were without effect. At the group with medical treatment in 40% of the patients complete healing was observed, incomplete - in 20% and without effect - in 40%. These results are similar to those reported by other authors. In comparison with the treatment with blockers of gastric secretion the results of EHF-therapy are much better (Fig.3).