EXAMINATION AND TREATMENT OF PATIENTS WITH HEMORRHAGE COMPLICATED GASTRO-DUODENAL ZONE PEPTIC ULCER DISEASE

Chernov V.N., Maslov A.I., Barokov E.M.
General Surgery Department of Rostov State Medical University, Rostov-on-Don, Russia

At the General Surgery Department of the RSMU and in the emergency hospital №2 of Rostov-on-Don during 1996-2007 163 patients with hemorrhage complicated gastro-duodenal zone acute ulcers had been observed. The cause of acute ulcers appearance in 40 patients were stressing situations, in 69 – primary trophic disturbances, in 18 – burn disease, in 36 – chemical agents (medicaments, alcohol). All the patients were hospitalized to the surgical hospital with bleeding in emergency order. 28 (11.1%) patients needed surgery (the retroclusion was performed in 16 cases of them). Two patients died of a heavy blood loss at the admission in the admitting office (late hospitalization). In the rest 133 (81.5%) patients the bleeding was stopped nonsurgically (endoscopy, medicaments).

At the admission the patients were prescribed the infused, sedative, hemostatic, antiacid and anti-ulcer therapy. An important role was played by the transfusion of blood components and substitutes.

After bleeding control together with generally accepted clinico-laboratory studies the instrumental examinations were performed in accord with the methods developed at the Department:
- endoscopic examination with the obligatory study of the esophageal junction and big duodenal nipple (BDN);
- multiplanar X-ray examination;
- study of the acid-forming function of the stomach with the help of computer pH-metria;
- stomach motor function study;
- Helicobacter pylori detection.

The findings testified that an X-ray examination against the continuing bleeding is inefficient. We carried out this study on the 3d day after bleeding control.

The gastric acid-forming function study data let us give up on the existing before the present day notion: hiper-, hipo-, and normal acidity. Only on the indication of acidity production, alkalizing function and vagus reaction on blockers we got 8 patient groups, only 3 of which needed a further surgeon observation with a view to a possible surgery.

The vegetative nervous system (VNS) investigation has allowed evaluating the state of the sympathetic nervous system, which promotes the stomach and duodenum mucous coat protective functions enhancement (myxopoiesis, carbonates development, etc.). On the state of hypothalamic centers of the VNS and peripheral terminals we have marked out 9 functional patient groups, which were also distributed according to the problem of treatment and prognosis.

The endoscopic studies let not only determine the ulcer focalization, sizes and state, but detect the hiatal hernia (HH) presence, the BDN state, malignant transformations suspect zones, etc. I.e. it allows detecting the pathology, on which to a large extent the choice of surgical tactics depends. So, for example, with the HH presence one doesn’t have to expect the intended result from a stomach and duodenum operation without the esophageal hiatus correction.

An important role in the gastro-duodenal zone ulcer therapeutic approach determination is played by the stomach motor function. So, at dismotility and other causes (BDN pathology) it is not possible to restore the physiological food passage and, therefore, it is impossible expect a demandable effect from the gastric resection.

The detection of Helicobacter pylori by biochemical and anatomical methods is obligate. Among qualitative biochemical CLO-tests the “express-urea” one, produced in the Rostov dealer Scientific Production Enterprise “Source System”, was used. This method differs from other tests by the following properties: the urea activity determination result is evaluated in 5-7 minutes after gastrobioplates being placed into the test solution; after the evaluation of Helicobacter pylori contamination of the gastroduodenal mucous the biopsy samples placing into other solutions for the following anatomic study is possible.

The obtained findings on every patient (136 persons) having been treated according to the above-mentioned scheme have let us prognosticate that only 14% of them will need surgical service in the future. All the patients were put into dispensary observation list, got antulcer prophylactic treatment and examination (endoscopy, pH-metria, the VNS and gastric motor activity) regularly. Remote results from 4 to 11 years testified that only 6 persons from this group were subject to surgical service.

Comparing the hemorrhage complicated gastro-duodenal zone peptic ulcer disease patients’ examination and treatment results on a traditional scheme (170 persons) with the results of treatment of 163 patients examined and treated on our scheme, we have come to the conclusion that due to the examination and treatment of patients on our scheme we managed to decrease the number of surgeries by 52.2%
and the lethality – by 21.4%. Thereat we think that the surgeries executed without strict indications and stomach functions features regard can lead to the development of a great number of pathological states demanding persistent conservative therapy or reoperations.

Thus, the hemorrhage complicated gastroduodenal zone acute peptic ulcer disease patients’ treatment results allow coming to the conclusion that to determine the treatment policy of such patients the application of these examination methods are obligate.

The article is admitted to the International Scientific Conference “Fundamental and applied research in medicine”, China (Beijing), 26 November - 4 December, 2007, came to the editorial office on 09.11.07.

RESEARCHING OF NERVOUS VESSEL’S SKIN REACTIONS IN YOUNG TRACK AND FIELD ATHLETES
Chernyakin D.V., Aleksanyants G.D.
Kuban State University of Physical Culture, Sports and Tourism, Krasnodar, Russia

The process of training and competitive activities while practicing track-and-field athletics in young sportsmen is always connected with intensive muscle loadings, strenuous exercise, that cannot help reflecting on the functional status of the vegetative nervous system (VNS) as it takes part in the adaptive mechanisms of physiologic processes regulation. One of the important factors reflecting the VNS work level is the skin neurovascular apparatus state. For the estimation of the skin neurovascular apparatus the reactions emerging in response to a mechanical irritation and characterized by the appearance of differently colored lines, i.e. dermographism, are used.

The purpose of the research was to study the skin neurovascular apparatus physiological maker in young athletes during the pre-season of the yearly training program.

When investigating local dermographism (the pencil for dermatographs of V.A. Madorsky) the time of its emerging (the dermographism latent period), and also the duration and color were taken into account. The force of pressure of the dermograph on skin made 200 and 500 grams. The skin response reaction on the pressure of 200 grams was considered. The rest observations were used only for defining the adequacy of the skin reaction to the irritant force.

31 young track-and-field athletes aged from 12 to 16 (the second junior – the first senior degree) took part in the examination. Different factors of the latent period norm and dermographism duration, according to different authors’ findings (V.A. Grebennikov, V.D. Vetchinkin, 1985; P.Ya. Yakobson, 1994), depending, as it seems, on the difference between the research methods of this factor, served the basis for the local vascular reactions investigation in 30 apparently healthy coevals of the control group.

As the result of the carried out control studies and statistical treatment of the findings the dermographism latent period duration norm, made 5,1±0,9 sec, and the duration of its existence from 4,5 min to 8 min have been determined. Considering the fat that it is inappropriate in practice to determine the duration of the dermographism latent period in fractions of a second we think it is possible later on in our further work to take the latent period of 4-6 sec for the norm. The dermographism latent period duration characterizes the skin neurovascular apparatus affectability.

The analysis of the findings testified that in 17 (54, 8%) examined athletes a normal affectability of the skin vasomotor system was observed, in 12(38, 9%) examined sportsmen – the skin vasomotor system affectability was lowered, and in 2(6, 3%) – it was increased. Summing up, it is necessary to note that the lowered affectability of the skin vasomotor system in young athletes is registered considerably more often compared to the increased one. In accord with the dermographism duration the following results were obtained: in 20(64, 5%) examined persons a normal in time dermographism (the dermographism duration of 4 min 30 sec – 8 min); in 9(29, 1%) – an inert in time dermographism (the dermographism duration of not more than 8 min); in 2(6, 4%) examined persons – a quickly disappearing dermographism (the dermographism duration of 1-4 min 29 sec).

Thus, when investigating the latent period and the duration of dermographism in young athletes, in more than a third of them the skin neurovascular apparatus functional status disturbance has been established.

The study of dermographic lines’ coloration in young athletes and persons of the control group didn’t make it possible to register a substantial difference. Practically in all the examined the lines colored from pink to red emerged at the dermograph pressure of 200 and 500 grams. That is, the color study in young track-and-field athletes hasn’t given fresh information for the judgement about the skin vasomotor system functional status.

The changes on the part of the skin neurovascular apparatus in young track-and-field athletes detected by us testify to some extent to the adaptation mechanisms of physiological processes regulation, the vegetative nervous system in young sportsmen in particular.

The article is admitted to the International Scientific Conference “Fundamental and applied problems of medicine and biology” young scientists’ section, United Arab Emirates (Dubai), 16-23th October, 2007, came to the editorial office on 09.11.07.