

PATHOGENETIC APPROACH TO INTRA-ABDOMINAL HYPERTENSION MANAGEMENT IN CASE OF INTESTINAL OBSTRUCTION

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THE AIM of the research is to study functional disorders in patients with acute intestinal obstruction on different levels of intra-abdominal hypertension and to use the results of the study to perform the surgical treatment of such patients more effectively.

MATERIALS AND METHODS. The clinical material includes the analysis of treatment results of 86 patients with adhesive and obturative acute intestinal obstruction (AIO). All the patients had laboratory and instrumental examinations, vegetative index of Kerdo and leukocyte index of intoxication were calculated, oncotic pressure and intra-abdominal pressure were measured. All the patients with obturative AIO underwent the surgery, 63% of the patients with adhesive AIO underwent the surgery and 37% of the patients received conservative treatment.

RESULTS AND DISCUSSION. The evaluation of the vegetative status revealed that sympathetic influences dominated in all the patients with AIO at the time of hospitalization. This fact indicates the adequate activation of compensatory mechanisms in the body. There was approximately the same number of patients with vagotonia and eutonia. The abdominal obstruction caused the rise in intra-abdominal pressure and the development of paresis of the intestine, the appearance of exudate in the abdominal cavity and, as a consequence, hypoproteinemia. The most evident hypoproteinemia (59.8 ± 2.5 g/l) was found in the patients with obturative AIO and it was considerably lower ($p < 0.05$) in comparison with the patients with adhesive AIO (63.9 ± 2.3 g/l). Consequently, AIO (19.8 ± 1.3 mm Hg) was reliably ($p < 0.05$) lower in the patients with obturative AIO in comparison with the patients with adhesive AIO (25 ± 1.2 mm Hg). So, the amount of exudate was reliably ($p < 0.05$) increased (335.7 ± 43.8 ml) in case of obturative AIO in comparison with adhesive AIO (157.4 ± 29.4 ml). Hypoproteinemia and hypoionia contribute to water balance disorders, the development of hypovolemia, hypoperfusion, and a decrease in the rate of diuresis. In case of obturative AIO diuresis was below the norm

(750 ± 95.7 ml/day) in 34.4% of patients. In case of adhesive AIO diuresis was below the norm (800 ± 129.4 ml/day) in 18.5% of the patients.

An important role in the growth of exudate and the disturbance of water metabolism in the body is played by the inflammation of the intestinal wall. Leukocyte index of intoxication in the patients with obturative AIO was reliably ($p < 0.05$) higher (8.43) than in the patients with adhesive AIO (5.79). As a rule, the pathogenesis of system and organ dysfunctions is determined by intra-abdominal hypertension syndrome. The level of intra-abdominal tension increased above the norm (11.8 ± 0.1 mm Hg) in 63% of the patients with adhesive IO, which was the reason for undergoing surgery. All the patients with obturative IO had the increased level of intra-abdominal tension (12.4 ± 0.2 mm Hg) which indicates the first stage of intra-abdominal hypertension. Besides, 3.4% of the patients developed fecal peritonitis during the treatment.

CONCLUSION. Pathologic changes of organs and systems are most evident in case of obturative IO. It leads to the conclusion that the tactics of the treatment must include the early diagnostics of the pathology in the abdominal cavity when the level of intra-abdominal tension is measured and a prompt surgery is performed. But in case of adhesive AIO the tactics of conservative treatment must be the priority as pathological changes in the body are minimal and often caused by postoperative adhesion process.

REFERENCES

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