

ASSESSMENT OF CLINICAL PRESENTATION OF ABDOMINAL AORTIC ANEURYSM

Boyko V., Buchneva O., Shafer Ya., Pisklova Yu., Krylova O.

State Facility V.T. Zaytsev Institute of General and Urgent Surgery, Kharkiv, Ukraine

Abstract. To date, vascular disease rank first (more than 50%) among the causes of mortality in Ukraine. Atherosclerotic vascular involvement, being the most frequent etiological factor of abdominal aortic aneurysm, in the absence of timely diagnosis and treatment, causes severe complications, early disability and death. Clinical and functional diversity of abdominal aortic aneurysm causes difficulties in diagnosing, defining different therapeutic approaches, methods of operation and protection of visceral organs and spinal cord. The article analyzes various clinical manifestations of abdominal aortic aneurysms in 264 patients who underwent surgical treatment at the State Facility V.T Zaytsev Institute of General and Urgent Surgery from 2010 to 2018.

Key words: abdominal aortic aneurysm, rupture of abdominal aortic aneurysm.

Introduction. Surgery on the aorta began with operations on its abdominal department. In 1817, A. Cooper first performed ligation of the abdominal aorta due to aneurysm. Surgery on the thoracic aorta originated in 1944, when J. Alexander and F. Byron were the first to perform resection of sac-like aneurysm of the thoracic aorta with suture of wall defects [3, 4, 9]. The first successful operation on the rupture of abdominal aortic aneurysm (AAA) was carried out on 13 March 1953 by Henry Bahnson, which was reported in the same year in the American journal "Annals of Surgery" in the article "Considerations in the excision of aortic aneurysms". This event has become a major milestone in the history of vascular surgery, and especially in the history of surgery on aortic aneurysms. The subsequent progress of aortic surgery is associated with such names as M. DeBakey, D. Cooley (1953), R. Wheat (1964), M. Bentall and A. De Bono (1968), C. Cabrol (1968) p). The complexity of clinical diagnosis of rupture of abdominal aortic aneurysm involves the variety of symptoms described in this pathology. And most of these symptoms can be observed in many acute diseases of the abdominal cavity, renal colic,

gastroduodenal bleeding, in lumbar sacral osteochondrosis [1,8].

2. Purposes, subjects and methods:

2.1. Purpose is to identify the most common clinical manifestations of abdominal aortic aneurysm, based on a long-term experience of treatment of this disorder.

2.2. Subjects & Methods. From 2010 to 2018, 264 patients with abdominal aortic aneurysms were surgically treated at the State Facility V.T Zaytsev Institute of General and Urgent Surgery. Patients were divided by gender, age, and etiology of the disease. All patients were also divided into 4 groups depending on the nature and severity of clinical manifestations.

The main group of patients with abdominal aortic aneurysm comprised patients aged 61 to 70 years (52.6%). One third of the patients were aged over 70 (29.22%). Patients under retirement age amounted to 18.18% of the number of all patients with abdominal aortic aneurysms.

There were predominantly more male individuals (251 patients) among patients with true abdominal aortic aneurysms (AAA), which was 95.07%. Of 13 women with abdominal aortic aneurysms (4.93%) 9 were over the age of 70.

In the vast majority of cases, in 256 patients (96.9%), the etiological factor in the development of AAA was atherosclerosis. Nonspecific aortoarteritis occurred in 3 (1.14%) patients, which was clinically determined and confirmed by morphological studies.

Corresponding Author:

Oleksandra Krylova, MD, Postgraduate student,
Department of Surgery ¹ .1, Kharkiv National
Medical University, Ukraine.
Email: alexandrakrylova13@gmail.com

In the last three years, "inflammatory" aneurysms of the abdominal aorta were also detected in 4 cases (1.52%). A characteristic feature of these aneurysms was an intraoperative morphological picture: most often there was a significant thickening of the wall of the aneurysm and a "layered" structure of the wall, severe adhesion process (fibrosis) surrounding the aneurysmic and retroperitoneal area, densely fused adjacent abdominal organs with the aneurysm and with each other. Histological picture was characterized by severe productive inflammation with nonspecific lymphohistiocytic infiltration and severe, intense fibrosis. In one case, the cause of abdominal aortic aneurysm, as the primary manifestation of the disease, was fibromuscular dysplasia (0.38%).

The patients underwent traditional clinical examination and included clarification of complaints, comprehensive history taking, examination, palpation and auscultation of the aorta and arteries of all major vascular basins (vessels of the lower extremities, main arteries of the head), computed tomography and ultrasound examination. The clinical basis for establishing the diagnosis of AAA was the classic triad of symptoms, namely the presence of rounded, pulsating formation in the abdomen of a dense-elastic consistency, with systolic noise over it, which was confirmed by the data of computed tomography.

Conflict of interests. There is no conflict of interests.

3. Results and discussion. In order to compare the outcomes of the disease, all patients were divided into four groups (table 1, 2).

The first group included patients (52) with asymptomatic course of the disease

The second group included patients (68) with a low-asymptomatic clinical picture, which, as a rule, when examined, was associated with another disorder. These patients, with abdominal, urological, ischioradicular syndrome, and chronic lower limb ischemia, were found to have indirect signs of AAA, and the diagnosis was confirmed following detailed examination. In this group of patients in a non-specialized hospital, only 19 patients (28.78%) were suspected to have AAA. The remaining 49 (71.22%) were admitted to a clinic with another disorder, underlying to this disease.

The third group consisted of patients with pain syndrome in the abdomen, in the lumbar region, which was the reason to suspect AAA. Clinical manifestations of the disease in this group of patients were characterized by a rather wide spectrum: from slight discomfort in the abdomen to severe pain syndrome that usually occurred or intensified after physical or psychoemotional load and secondary to increased blood pressure.

The fourth group included patients with complicated course of the disease in the form of a rupture of aneurysm with hemorrhage into retroperitoneal space, into free abdominal cavity or into the adjacent hollow organ, as well as splitting of AAA, that is, those cases when patients required emergency surgical care.

By asymptomatic AAA, we mean complete absence of clinical presentation in the form of pain syndrome, discomfort in the abdomen and in the area of the kidneys. These aneurysms were identified as occasional findings in prophylactic

Table 1

Clinical manifestations of AAA in both groups of patients under investigation

Clinical manifestations of AAA	Number of patients	
Asymptomatic	52	19.7%
Oligosymptomatic	68	25.76%
Symptomatic	118	44.69%
Complications (rupture, splitting)	26	9.85%
Total	264	100%

Table 2

Clinical manifestations of AAA in patients of the main and comparison groups

Clinical manifestations of AAA	Main group	Comparison group
Asymptomatic	31 (19.1%)	21 (20.6%)
Oligosymptomatic	42 (25.9%)	26 (25.5%)
Symptomatic	71 (43.8%)	47 (46.1%)
Complications (rupture, splitting)	18 (11.1%)	8 (7.8%)
Total	162 (100%)	102 (100%)

examinations or in an ultrasound examination conducted routinely during a prophylactic examination. In this group of patients, AAA was detected in prophylactic examinations in 17 (32.7%), while in the rest of 35 (67.3%) when performing a planned ultrasound study, as part of comprehensive examination of persons due to other disorders of the abdominal organs, urinary tract and kidneys, as well as the spine.

Conclusions:

1. According to our data, asymptomatic AAA occurs quite often and in our study they accounted

for one fifth (19.7%) of all patients who were operated. There is a need for screening in people with risk factors, for timely diagnosis and surgical treatment of pathology, prevention of complications, including lethal ones.

2. One fourth of all patients (25.76%) were patients with oligosymptomatic aneurysms of the abdominal aorta requiring additional diagnosis.

3. Almost half of the patients, 118 (44.69%) who were admitted to the clinic, were patients with typical symptoms of AAA and correct diagnosis did not cause difficulties.

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