

OUR EXPERIENCE ON TREATMENT OF CHILDREN WITH PURULENT OMENTITIS

¹Barskaya M.A., ¹Osipov N.L., ¹Zavyalkin V.A., ¹Kuzmin A.I., ²Schuklova V.V.

¹Samara State Medical University, Samara, e-mail: zavvlad63@yandex.ru;

²Samara Regional Clinical Hospital named after V.D. Seredavin, Samara

Experience of treatment of 224 patients with acute appendicitis, omentitis, was analyzed. Studying of histological changes in epiploon tissues with determination of optimal linear sizes of resection was carried out. Investigating results of the conducted research, it is possible to claim that the linear dimensions determined by us and the area within which the epiploon resection was carried out were characterized by minimum inflammatory changes in fabrics. It defined a smooth current of the postoperative period and minimized risk of a repeated operative measure, and also reduced terms of treatment of patients.

Keywords: purulent omentitis, acute appendicitis, epiploon tissues, resection, patient

Relevance of research. Diagnostics and treatment of a purulent omentitis⁷ children is one of actual problems of children's surgery.

The inflammation of a big epiploon is noted at the destructive form of an acute appendicitis at 30% of children under 7 years and at 70% of patients 7 years and more senior [2, 3, 5, 7]. Involved in an inflammation, the epiploon comes into immediate contact with destructively changed shoot. At pathological states the epiploon gets absolutely special characteristics: plasticity, ability to an union with the injured, inflamed surface and to immunologic reaction [1, 2, 10].

At surgical treatment of a purulent omentitis often there is the difficult situation with the bound to delimitation of a resection of an epiploon [7, 9].

I.Y. Karpova and V.V. Parshikov (2002), citing data about a resection of a big epiploon at an acute appendicitis, in 11,6% of supervision in the postoperative period diagnosed secondary subacute omentitis.

As complication postoperative infiltrative subacute omentitis arises in 0,02–4,52%, being the heavy and the least studied complication of surgical interventions on abdominal organs at childre [2, 4].

Thus, in treatment of a purulent omentitis at children there are a lot of controversial issues that defines need of further researches. We stopped on a solution of the problem of the epiploon resection caused by lack of uniform idea of borders. The solution of this problem will allow to reduce the number of complications in early and late postoperative the periods.

Research objective. Decrease in frequency of the early and remote postoperative complications, the bound to a purulent omentitis at children. Research problems:

To define optimum borders of a resection of a big epiploon at a contact omentitis at chil-

dren. Research materials. From 1998 to 2015 at department of the children's surgery of the Samara state medical university located on the clinical SCCHN^o 1 base. N.I. Pirogova and SRCH of V.D. Seredavin, were on treatment of 267 children aged from 1 year till 15 years with an acute appendicitis, a contact omentitis, a local form of peritonitis and postoperative infiltrative subacute omentitis.

The analysis of case histories of children, with identification of the most often found forms of an acute appendicitis and an omentitis is carried out. When studying protocols of operations the special attention is paid to the linear dimensions of a rezetsirovanny epiploon.

All patients are divided into two groups. 209 patients entered a basic group. From a basic group at 32 children for the purpose of definition of optimum borders of a resection studying of histologic changes in an epiploon is carried out throughout. In each age group about 8 researches are carried out.

Control group made the 58th patient. The retrospective analysis of protocols of operations showed that in the postoperative period children of this group had complications, the bound to an inadequate resection of an epiploon.

In most cases patients with various forms of an appendicitis and an omentitis entered in the first days from the beginning of a disease – 224 (84%). 43 (16%) the patient entered for the 5–6th days.

In the analysis it is revealed that authentically high frequency of an acute appendicitis and omentitis is the share of age of children of 11–15 years (45,3%) with advantage at boys.

The group of patients with an infiltrative subacute omentitis included 58 children who are earlier operated concerning the destructive forms of an acute appendicitis, and a contact omentitis. The epiploon resection on border

of visually changed and healthy epiploon with use as a suture material of capron and a catgut was executed. At 44 (75,8%) patients in the early postoperative period uncomplicated infiltrative subacute was created omentitis, at 14 (24,2%) – abscess. The most often infiltrative subacute omentitis meets at the age of 8–10 years. Complication is more often noted at boys.

Pathomorphologic changes in a big epiploon at children with an acute appendicitis, a contact omentitis, and a local form of peritonitis. The most often unsatisfactory results of treatment of a contact omentitis at children are bound to inadequate definition of border of a resection of an epiploon that in certain cases causes the necessity of a repeated operative measure. In the majority of supervision at a resection of an epiploon the elementary technique based on a visual assessment of appearance of the epiploon involved in inflammatory process is applied, and the resection is carried out on border between the healthy and inflamed fabrics.

The solution of this problem consisted in studying and the analysis of the linear dimensions and the area of a resection of an epiploon. In the analysis of control group of patients (58 children) by us it is revealed that in the postoperative period in this group of complication are bound to the improper definition of border of a resection, and results of treatment are recognized as unsatisfactory. The linear dimensions and the area of a resection in this

group were much less, than in a basic group. In a basic group of complications, the bound to an epiploon resection, were not. The studied linear dimensions and the area of a resection of an epiploon in this group allowed to draw a conclusion that they are optimum and minimize risk of postoperative complications. For confirmation of the obtained data at 32 children of a basic group studying of histologic changes in a resected epiploon is carried out. The free edge of an epiploon, the mid-range and border of a resection were investigated. 8 researches in each age group are conducted.

In a histologic picture of the free edge of an epiploon existence of an extensive site of the necrosis penetrated by segmented leukocytes and products of their disintegration attracts attention. They are localized in the center, forming the center and are distributed in the form of a narrow strip throughout one of the parties of an epiploon.

In adjacent sites fatty tissue was penetrated by a large number of venules and veins in a condition of a plethora. Vessels are numerous, there are traces of the former hemorrhages in the form of a fibrinous clot. On separate sites in fatty tissue infiltrates from segmented leukocytes are defined.

In fabrics of the mid-range of an epiploon the abscess penetrated by sectional leukocytes and products of its disintegration is found. In the fabrics surrounding abscess fresh hemorrhages and hemorrhages in the form of a fibrinous clot are revealed.

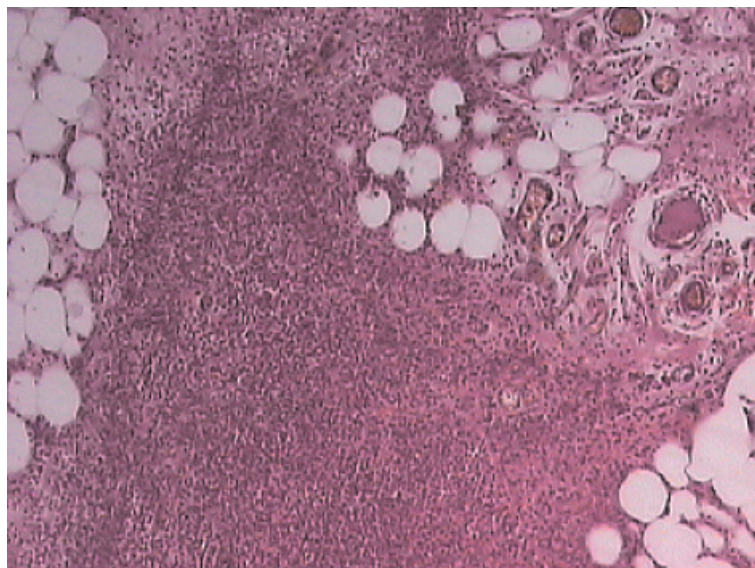


Fig. 1. Histologic picture of the free edge of an epiploon (coloring by a hematoxylin and eosine. Apprx. 8, about. 10)

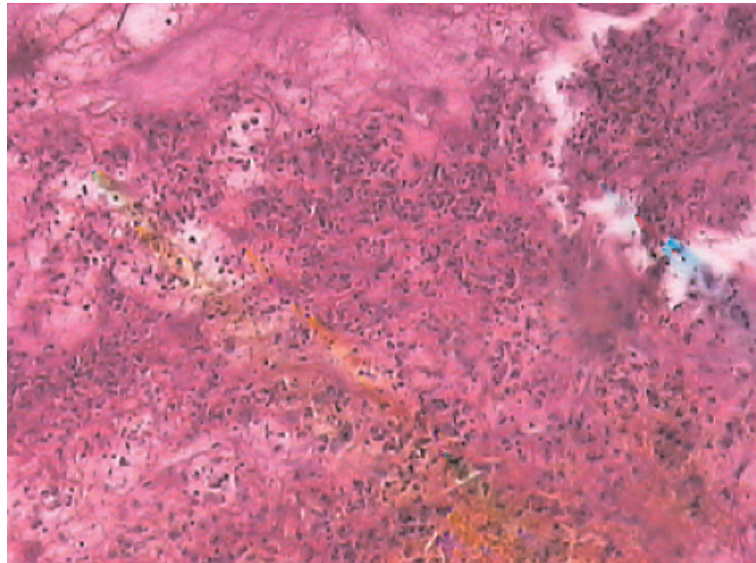


Fig. 2. Histologic picture of the mid-range of an epiploon (paint of a gematoksilinoa and eosine. Apprx. 8, about. 10)

Fabric of an epiploon consisted of islands of the fatty cages divided by wide layers of the formed connecting fabric presented generally by fibroblasts and gentle bunches of collagenic fibers. It was penetrated by a large number of vessels of a microcirculatory bed among which venules, shallow arteries and veins prevailed. Especially it was much observed elements of a venous component.

In connecting fabric around vessels perivascular infiltrates from sectional leuko-

cytes and lymphocytes which penetrated a wall of shallow arteries and plasmocytes are found. There was a moderate diffuse infiltration consisting mainly of lymphocytes.

In large venous vessels the venous plethora was noted. There was an inflammation site in the form of abscess, and also inflammatory changes of fabrics, adjacent to it, in the form of perivascular infiltrates. Around fatty cages fresh hemorrhages in a condition of the organization with diffuse leukocytic infiltration are found.

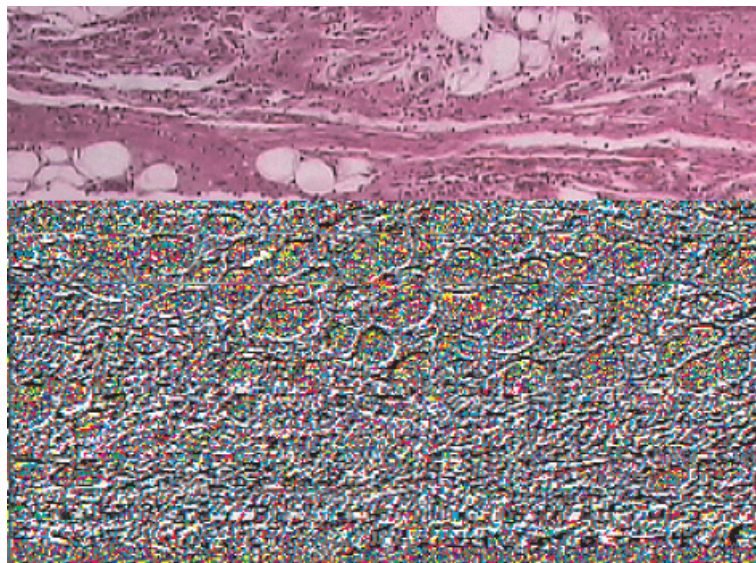


Fig. 3. Histologic picture of border of a resection of an epiploon (coloring by a hematoxylin and eosine. Apprx. 8, about. 10)

In a histologic picture on border of a resection of a big epiploon a large amount of fatty tissue which sites are divided by connective tissue layers is revealed. In connecting fabric traces of the former hemorrhages in a condition of the organization and the small perivascular infiltrates consisting mainly of plasmocytes are revealed. Fabric is penetrated by a large number of vessels: arteries, veins and venules. Existence of thin-walled venous vessels was noted, they were expanded, with the phenomena of a hemolysis of erythrocytes. Numerous expanded capillaries, arterioles in boundary sites are also revealed. Here traces of the former hemorrhages are found.

Fatty cages are partially destroyed, sometimes between them fabric liquid, simple restricted cell-like infiltrates, leukocytes were defined.

Also development of the connecting fabric consisting of fibroblasts, hystiocytes, separate lymphocytes is revealed. Fabric is penetrated by elements of a microcirculatory bed.

Considering what in a basic group of children of postoperative complications is not revealed and repeated operations were not performed, we made the conclusion that particular linear dimensions and the area of a resection are optimum. The conducted histologic researches at 28 patients of a basic group confirmed that the resection of a big epiploon is carried out in borders of minimum expressed inflammation.

Comparison of average linear dimensions of a resection of a big epiploon in the main and control groups allows to draw a conclusion that visually visible borders of a resection not always provide the favorable current of the postoperative period. It is proved by our clinical supervision. In a basic group of children of 1–3 years the average length of a resection makes 7,13 sm, width 3,75 sm, the area of a resection 26,73 sm². Length of a resection was equal in control group 2,5 sm, width – 2 sm, and the area of a resection – 3 sm².

Comparing the obtained data, it is possible to draw a conclusion that for the favorable current of the postoperative period it is necessary to recede from border of visible inflammatory changes of fabrics of an epiploon longwise on 4,6 sm, to width on 1,75 sm, and the area of a resection has to be increased by 23,7 sm².

In a basic group of 4–7 years the average length of a resection makes 7,5 sm, width 3,5 sm, the area of a resection of 26,5 sm². In control group length of a resection was 6,76 sm, width 3,11 sm, and the area of a resection of 24,48 sm². For the favorable current of the postoperative period in this group it is necessary to recede from border of visible inflammatory changes of fabrics of an epiploon longwise on 1 cm, width 0,4s m, and the area of a resection has to be increased by 2 sm².

In a basic group of children of 8–10 years the average length of a resection makes 5,88 sm,

width 8,06 sm, the area of a resection 39,17 sm². In control group length of a resection was 6,15 sm, width 3,63 sm, and the area of a resection 26,77 sm². Comparing the obtained data, it is possible to draw a conclusion that in this group it is necessary for the favorable current of the postoperative period that width of a resection was increased on 2,25 sm that will allow to increase also the area of a resection on 12,4 sm².

In a basic group of children of 11–15 years the average length of a resection makes 11,33 sm, width 3,67 sm, the area of a resection of 67 sm². In control group length of a resection was 7,08 sm, width 3,23 sm, and the area of a resection 25,03 sm². Comparing the obtained data, it is possible to draw a conclusion that for the favorable current of the postoperative period in this group it is necessary to recede from border of visible inflammatory changes of fabrics of an epiploon longwise on 4,25 sm, resection width sufficient, and the area of a resection has to be increased on 41,97 sm².

Investigating results of the conducted research, it is possible to claim that the linear dimensions determined by us and the area within which the epiploon resection was carried out were characterized by minimum inflammatory changes in fabrics. It defined a smooth current of the postoperative period and minimized risk of a repeated operative measure, and also reduced terms of treatment of patients.

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