



Mini-Review

RELAPAROTOMY-DEFINITION AND ATTEMPT FOR A NEW CLINICAL CLASSIFICATION

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ABSTRACT

In the last years as a result of heaping of clinical database connected with adequately and timely operative treatment in patents with postoperative complications existed a series of questions. First of all it was connected with the way of classification on the reasons that demanded new laparotomies. At the moment the offered classification for laparotomy shows our understanding for the leading causal connection to a certain degree. Although its priorities, there are some contradictions in combined cases.

This makes us doing a review of the adopted classification and to try to bring her clinical meaning up to date. We hope it would help and facilitate the daily surgical work if, of course, it will be good received in medical surgical community.

Key words: re-laparotomy, classification

Under the name of the relaparotomy we understand doing of repeated laparotomy after run through a stomach operation before that. This term has a Greek origin and it has three parts in it re-repeated, lapara-stomach, tomie-cut up, i.e. a repeated exploratory operation of the stomach cavity.

Some authors try to put the relaparotomy in a straight relation with the first operation. They explain the surgical treatment of the complications, which are arisen after the operation of the abdominal organs, or the part of this treatment when it is not factually finished. It exists some misunderstanding about this definition. Thus, the relaparotomy can be done and for removing some diagnostically and tactical mistakes from the first operation and also in a new disease.

According to (1) under the relaparotomy we understand “a new opening of the abdominal cavity in postoperative period, independently of the reason of the operation. Of course, this definition is also not a completely clear about what is this a relaparotomy, because it doesn't

point the duration of postoperative period and it doesn't fix the time after the first operation.

Mamich V. I. and co. (2) offers in the definition for a relaparotomy to consist the time of hospitality in surgical clinics – “an interference, which accomplish in the time of hospitality in a surgical ward, after the first operation”. The reason that the patents are kept in the ward for different periods of time, often for months, is unclear and inaccurate in many cases.

It doesn't exist yet an exact distinction of the terms “repeated operation” and “relaparotomy”. The world famous surgeons like (3, 4), even they mix the term “relaparotomy” with a reoperation in the early postoperative period. These authors think that reoperation as “early” until 14th and “lately” after 14th from the first abdominal operation. They define as “lately” one and the reoperation which is done 30 days after the first one on purpose closure of intestinal fissures, colostomies or reconstructive operations of gastrointestinal or urogenital tract. As itself the term “relaparotomy” means the next intervention in the abdominal cavity, so that the reoperation is combined definition and it can be also used for other types of the repeated operations in the stomach.

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There are some differences about the volume, as well as the character of the operation interventions. No doubt, some surgeons suggest the operations like drainages of the abdominal cavity with haematomas, pustules, secondary seams wouldn't be explained as relaparotomy. On the occasion of intraabdominal abscesses' operations, and other authors like (5) include them in the group of "relaparotomies with restricted volume"

In literature, there are some notes where it is defined another type of relaparotomies thus so called "checking relaparotomy" (4). There are no urgent indications for it. It is recommended for the patients who have been operated from (mostly embolectomy) on purpose acute mesenteric thrombosis and/or and in oncological surgery.

The aim is to check the condition of revascularization after the intervention or to check whether the oncological operation is radical. That's why S. Shaw specifies the term "second look" and recommends its use to be in case after an acute mesenteric ischemia to verify the revascularization.

The terms like "planned relaparotomy" and "staged peritoneal lavages" (6, 7, 8, 9) define relaparotomy, which would be done before the first operation. The methods which will be finished with laparostoma and system (7) add much more medley in the problem.

According to (3, 4, 10, 11) the herniotomies and the appendectomies must be excluded from the group of interventions called "laparotomy", because of the localization and the proportions of the section and the volume of the intervention and because of that they must be excluded and from the list of the "relaparotomies".

From all these definitions it is obvious that the term "relaparotomy" is used in an arbitrary in different kind of interventions in the abdomen. When the first operation would not be connected with entering the abdominal cavity, which means it did not violate the integrity of the peritoneum and the dimness about "relaparotomy" is getting bigger.

At. Stojanov introduces the term "urgent relaparotomy" in cases when it is needed to be made until 10-15 postoperative day and it is necessary to be removed a complication connected or not with the first operation in a surgical way.

Kotov I. A. (8), later and, (9) divide postoperative period and, respectively, relaparotomies in three phases:

- Early phase-the first 3-5 days
- Late phase-2-3 weeks
- Remote phase-till the recovering the able-bodied

It does not exist differences that refer the first 2 phases, but the third one (1) and (12) suggest the relaparotomy to be defined as late one.

Now the repeated opening of the abdominal cavity is called early relaparotomy, and for late one it is made months and years ago from the first operation.

Abdominal wounded dehiscence and evisceration are complications that may occur after abdominal operations. Wounded dehiscence even without evisceration often requires reintervention. Sometimes relaparotomy as well couldn't cure the patient and it appears the necessity for a new intervention. The planned repeated and multi-phased operations as finishing stage of the first operation haven't been included in the term "relaparotomy" in accordance with most of the authors.

After discharge the patient even after the third phase of the postoperative period, re-opening of the stomach cavity called late relaparotomy.

Horev G. (12) offers the terms: urgently, termly, extensive, early laparotomy, which are with similar or equally meaning.

Sometimes it is needed after a repeated operation to be made third or fourth operation in the upper mentioned limits in the postoperative period. Many authors think the relaparotomy is when the third operation combines the same requirements like these ones in the first relaparotomy. Under the term "an urgent relaparotomy" (10) realizes "a new third operation, which is made on urgent way in the early period". Maybe the term is not exact clear. In order to provide the continuity more rationally the relaparotomies may be adopted and made a proposal by (13) and exactly "first, second and third relaparotomy"

B. Dmitrev (4) and (1) (1964) suggest a division in accordance to the complications that have come in postoperative period – bleedings, intestinal impassability and postoperative peritonitis.

It is considering that for relaparotomy may speak only on condition that the operation is only intraabdominally. From a practical point of view, it is necessary to have particular

section in the classification on the nature of the operation-radical or palliative.

According to (6, 9, 11) the divisions of both, limited and enlarged volume, in these ones must be strictly connected with the term radical or palliative character. In some cases the operation is with a limited one, but it there is radical effect-for instance after drainage of an abscess, in other cases –the volume is enlarged, but it is not radical-for example in debridman, enterostomy, intestinal resection and etc.

The (6) divides the relaparotomy on termly and planly. Under a term relaparotomy he realizes a surgical intervention which is made through the hospitality of the patient.

A few years later (13) is offered the relaparotomies' classification on:

- extremative– in postoperative peritonitis, eventeratio, postoperative bleedings, acute intestinal impassability and acute postoperative impassability in gall duets
- postponed in abscesses in the stomach, anastomosities , and other that doesn't require extremative relaparotomy.
- planly in outer intestinal fistulas, and bilious fistulas

The (7, 14) suggests a complicated classification. We examines the relaparotomies as early, postponed and lately and he makes detailed distinctions in every type depending on the character of postoperative complication.

At present some authors propose the following classification of relaparotomies:

1. According to the period of the laparotomy
 - 1.1 Early
 - 1.2 Postponed
 - 1.3 Lately
2. According to the aim of doing the laparotomy
 - 2.1 Diagnostic
 - 2.2 healing
 - 2.3 controlling
3. According to the type of the complication
 - 3.1. Inflammation in the stomach cavity
 - 3.2. Intestinal impassability
 - 3.3. Stomach bleeding or gastrointestinal lumen's bleeding
 - 3.4. Wounded dechiscention with eventratio
 - 3.5. Other reasons
4. According to the localization of the relaparotomy's complication on:
 - 4.1. Organs in the stomach cavity
 - 4.2. Abdominal wall
5. According to the reason of the complication:
 - 5.1. Diagnostic mistakes

5.2. Technical mistakes

5.3. Tactical mistakes

5.4. Medical mistakes

5.5. Organizational mistakes

At the first sight this classification creates a confusion among the surgeons, because of the authors' aim to range over all reasons ,that leading to repeated operations and in the same time some misunderstandings arise on its structure. For instance, if it concerns for an urgent interventions that means the patient would be hospitalized, there won't be a need a period of the relaparotomy.

According to the above classification, every relaparotomy can be diagnostic, healing and controlling. Every intervention starts as diagnostic and it finishes as radical or palliative, but healing procedures. On the other hand the repeated intervention is both diagnostic and controlling. A confusion appears, dictated by the differentiation of the aim, namely whether it is healing, whether it is a control or diagnostic. Becoming complications in the early postoperative period in patients, who had a surgical intervention can due to reasons, connected with the main disease or in result of becoming changes in other organs or systems.

An approach, that concerns the changes in the diagnostics and the surgical interventions in multitravmatic patients is very interesting, when there is need for a reoperation because of a paralytic ileus or haematomas and postoperative pancreatitis. The existing classification relapaotomies occurred as a result of complications due to 5 reasons, each one with its clinical picture and severity of condition. It is not clear, however, to what part of the classification will refer combined cases. Controversial is the question of the inflammatory changes in the abdominal cavity, for example, abscess between the recesses and intestinal paresis in peritonitis and post-operative wound infection in cases without eventratsiya. This is hard case to accurately classify.

Regarding the last part of the proposed classification in becoming time shows that it pertains to errors resulting from the causes of organizational character and classification.

There is very meaning of what classification will use the surgeon and that will define the approach to the diagnostics, behavior and the operative and medical treatment of the patients after that.

Given here to mean those aspects of the current problems in this classification we suggest it to be changed in the following form:

1. According to the time of the first operation
 - 1.1. Early-through the period of patient's hospitalization
 - 1.2. Late
2. According to the purpose of doing relaparotomy
 - 2.1 healing - by radical or palliative character
 - 2.2. diagnostically-controlled
3. According to the kind of the complication, relaparotomy in
 - 3.1. Post-operative peritonitis
 - 3.2. Intestinal impassability that existed consequently from uncured inflammations in the abdominal cavity and/or retro peritoneum
 - 3.3. Stomach bleeding or gastrointestinal bleeding
 - 3.4. Other reasons
4. According to the reasons that causes the complication
 - 4.1. Qualificational mistakes that causes inadequately diagnostic and tactic behavior
 - 4.2. Organizational mistakes

In their desire to simplify the ever existent classification, we shall be guided by purely practical and applied side and their desire to present a visual, simple and profound at the same time classification matches our understanding of the causal nature of the complications in the majority of patients who will have an operation one reason or another.

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