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CASE REPORTS

FOREIGN BODIES IN THE RECTUM – AN UNUSUAL SURGICAL PROBLEM

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A foreign body in the rectum is not a very common emergency case in surgical practice, of various etiology. In the years 2003–2011, 8 people were hospitalised in the Clinic of General and Colorectal Surgery due to a foreign body in the rectum. All the patients were male. All of them were qualified for foreign body removal in a surgical suite, under general anaesthesia due to a potential need for expanding the scope of the procedure. In all situations attempts were made at removing the object through the anus, which proved successful in 7 cases, without complications.In one case the scope of the procedure needed to be expanded with laparotomy and sigmoidotomy, through which the foreign body was removed. This procedure was also carried out with no complications.
Key words: foreign body, rectum

A foreign body in the rectum is not a very common emergency case in surgical practice. Usually it is a result of pathological sexual activities performed by the patient themselves, or by other people, with or without the patient's consent, the latter being a criminal act (1). It can also result from swallowing the foreign body. Most of them are excreted (89-90%), some require endoscopic removal (10-20%), but 1% require surgical intervention (2). A foreign body can also appear in the rectum as an effect of migration from another organ; an example of such a situation is migration of an intrauterine contraceptive device (3).

Since a foreign body in the rectum is a rare pathology, and literature on this subject is scarce, we would like to share our experience in this matter and analyse difficulties associated with diagnostic and therapeutic conduct in such cases.

MATERIAL

In the years 2003-2011, 8 people were hospitalised in the Clinic of General and Colorectal Surgery due to a foreign body in the rectum. All the patients were male. The mean age was 42.6 years. The youngest patient was 30, while the oldest was 80. In 6 cases the foreign bodies were introduced into the rectum during sexual practices. The objects included: candles, a vibrator, a shaving foam cap, plaster and a cigar tube. In one case the foreign body was a piece of wood that entered the rectum during a fall. In one of the cases the body in the rectum was of iatrogenic origin – it was a tape introduced several years earlier into the perirectal space during a Tiersch's operation, which had undergone partial migration.

All patients at the time of admission underwent standard laboratory tests (morphology, ionogram, coagulogram, blood type assessment), abdominal ultrasound and plain abdominal X-rays in order to assess potential complications that could arise from foreign body presence.

Typically all patients were qualified for foreign body removal in a surgical suite, under general anaesthesia due to a potential need for expanding the scope of the procedure. In all situations attempts were made at removing

the object through the anus, which proved successful in 7 cases. These patients did not demonstrate complications and were discharged after 2 days on average. In one case, due to the size od the foreign body and its location near the rectosigmoid junction, the scope of the procedure needed to be expanded with laparotomy and sigmoidotomy, through which the foreign body was removed. The procedure ended in suturing the incision site in the colon using a single-layer continuous suture and exposing a double-barrelled protective sigmoidostomy. The postoperative course of the patient was uncomplicated. He was qualified for reconstruction of the gastrointestinal tract continuity after three months. It should be emphasized, however, that what helped in making the decision on performing laparotomy in the last case was preoperative diagnostics. The performed abdominal CT with 3D reconstruction revealed a foreign body of large volume that tightly filled the rectosigmoid junction.

DISCUSSION

The first problem encountered in case of a foreign body in the rectum is late reporting of this occurrence. It results from the exceptionally embarrassing nature of this pathology. That is why a large portion of patients at the time of admission have already acute symptoms resulting from foreign body presence. The consequences of foreign body presence in the rectum may be various and depend upon numerous factors: the way the foreign body was inserted, its size, shape, material deformability, the presence of sharp edges, the type of the material or the amount of time the foreign body has remained in the rectum. Depending on all these variables, the patient can be asymptomatic – demonstrating no symptoms of surgical disease in a physical examination or additional tests, only reporting foreign body presence in the rectum – or, more often, showing a wide range of surgical symptoms. In most cases the symptoms include obstruction or subobstruction resulting from impediment to intestinal passage through the mechanical blockage caused by the foreign body. An object present in the rectum can also result in bleeding to the gastrointestinal tract of varied severity. Additionally, it can cause perforation of the gastrointestinal tract or intussusception (4). One needs to keep in mind that introduction of the foreign body could also cause damage to the sphincter apparatus.

The basic part of patient diagnosis in case of a foreign body in the rectum consists of history taking and a physical examination. A per-rectal examination makes it usually possible to confirm foreign body presence in the rectum and preliminarily assess the extent of injury caused by its introduction and presence in the rectum. In most cases, however, it is difficult to assess its size and exact shape. At times, due to the possibility of migration, the foreign body can be out of reach of the examining doctor's finger. In such situations imaging tests are particularly helpful: X-ray of the abdomen and pelvis minor, CT (5), NMR of the abdomen and pelvis minor. They are very useful in identifying the object and determining its exact position, as well as in identifying potential symptomatic or subclinical rectal damage (e.g. perforation).

It is also always appropriate to assess the sphincter apparatus by performing anorectal-manometry and endorectal ultrasound. These tests make it possible to detect damage of the sphincter apparatus caused by a forceful insertion of the foreign body. Possible detection of sphincter damage can result in a change of the treatment strategy, but is also important from the legal point of view. In case of legal claims, it provides evidence that the damage was caused prior to therapeutic activities.

Another problematic aspect of dealing with a foreign body in the rectum is the goal of our activities, that is removal of the body. Of course it is best, when possible, to remove the foreign body through the anus – using a classical or endoscopic method (6). It sometimes happens, however, that acting according to the principle „if something got in, it will get out" is impossible or dangerous because of the foreign body size or shape (7). In such cases one might perform laparotomy or removal of the foreign body from the abdominal cavity through an incision in the intestine, or a combination of both methods. Laparotomy not only makes it easier and safer to remove the foreign body, but it also allows one to better assess the results of foreign body presence in the rectum, or higher, if the body has migrated. That is why the scope of the procedure is often expanded, depending on the situation, by resection, colostomy or abdominal drainage.

We believe that in cases where it is necessary to open the intestinal lumen or when the

foreign body resulted in interruption of intestinal continuity, in addition to the main part of the procedure (resection, suturing) it is safer to expose a protective stoma above the site of intestinal opening.

SUMMARY

A foreign body in the rectum is by all means a rare surgical issue. Preoperative diagnostics should include imaging tests allowing early diagnosis of asymptomatic complications caused by foreign body presence in the rectum. The inclusion of such tests affects therapeutic strategy planning and may accelerate a decision regarding the necessity of laparotomy.

Inasmuch as in most cases the foreign body can be removed through the anus, one should always be ready to perform laparotomy.

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