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An adult ileocolic intussusception diagnosed in postoperative course after laparoscopic cholecystectomy

Intussusception (*invaginatio, intussusceptio*) is an invagination of the proximal portion of the intestine into the lumen of the more distal segment (4). This condition initially decreases blood flow in the intestine causing swelling and may progress to necrosis of the segment of the bowel.

Intussusception is rare in adults. It occurs in 1% of patients with ileus and accounts for 5% of all cases of intussusception. Intussusception is most commonly encountered in children age 2 years and younger (4).

Usually bowel obstruction can present with abdominal pain colicky (cramping and intermittent) in nature, nausea, vomiting, weight loss, constipation or bloody stool (1, 3). Preoperative recognition of intussusception in adults is rare. Most patients are wrongly diagnosed with bowel obstruction and the mistake is discovered only during surgery (1).

Computed tomography or ultrasonography of the abdomen has been the most useful imaging modalities for intussusception. Contrast enemas which are the diagnostic procedures of choice for children, perform a secondary role in adults. Scout film of the abdomen does not allow intussusception to be detected (1).

Intussusceptions can be classified depending on the location. The most common classification system divides intussusceptions into four categories: 1) enteric (confined to small bowel), 2) ileocolic (the ileum intussuscepts through the ileocecal valve into the colon), 3) ileocecal (the location of an intussusception is the ileocecal valve), 4) colonic (involving the large intestine alone) (3).

The treatment for intussusception in adults is surgery (2). The type of surgical treatment depends on the patient and situation during surgery (1). Surgical resection of the intussusception without attempting to unfold the intussusceptum is the preferred treatment in adults, yet not always necessary. The resection without unfolding the intussusceptum avoids spillage of succus through accidental perforation and allows normal bowel to be used for the anastomosis (1).

We report a non-typical course for a very rare case of adult ileocolic intussusception.

CASE REPORT

A 29-year-old woman was reported to the emergency room with the complaint of severe intermittent abdominal pain in the right subcostal region with spread to her back. The abdominal

pain was associated during the last seven days with nausea and vomiting. Three months before admission she was hospitalized in the department of internal diseases, where cholelithiasis had been diagnosed. She was otherwise healthy. She had never informed of any old or new allergies. On clinical examination her physical condition was generally good. Normal body temperature. Her abdomen was slightly distended but soft, painful upon palpation of epigastric region and right subcostal region, without peritoneal signs or pathological resistance, Chelmoński's sign. Normal peristalsis. Additional tests: blood cell count, levels of urina and creatinine, levels of sodium and potassium, levels of protein and glucose were normal. Ultrasonographic findings: gallbladder enlargement, the lodging of a concrement of 8 mm in diameter in cystic gall duct, gallbladder not widened. Ultrasonography showed normal pancreas, spleen, kidneys and bladder.

On the basis of the clinical picture the patient was initially diagnosed as having calculus cholecystitis and scheduled to undergo surgery. The next day, once the patient had been prepared, surgery was performed. Laparoscopic cholecystectomy was done. A concrement of 1 cm in diameter was detected in gallbladder and subsequently removed. The patient felt well after surgery. Within 24 hours after surgery, the patient felt also well. She experienced only some pain at laparoscopic trocar wounds. The patient did not vomit, passed flatus. The oral alimentation was begun.

On the second postoperative day, abdominal pain colicky in nature occurred. On physical examination the abdomen was soft, painful upon palpation of postoperative wounds, decreased peristalsis was noted. Abdominal ultrasonography and radiography (x-ray) were performed in standing patient. The diagnostic findings showed normal limits. Analgesics and medication reducing cramping were prescribed. They helped to relieve pain.



Fig. 1. Radiography of the abdomen

On the third postoperative day abdominal pain returned and bilious vomiting occurred. On physical examination of the abdomen, a lump was detected in the right subcostal region. Auscultatory percussion of the abdomen identified rapid peristalsis. The initial diagnosis of bowel obstruction was reached. Radiography of the abdomen was repeated in standing patient and it showed fluid collection within small intestine (Fig. 1). The patient was diagnosed with small intestine obstruction and scheduled for laparotomy. During surgery an invagination of ileum into ascending colon through ileocecal valve was discovered. Small intestine filled the ascending colon up to hepatic flexure. Given the patient's young age and the location of the intussusception involving small intestine, a reduction of intussusception was attempted, yet due to the swelling of the intussusceptum, it failed. Right hemicolectomy and excision of intussuscepted small intestine were performed. The postoperative course was uneventful. The patient was discharged home and advised to arrange post-surgery checkup appointments in the outpatients' clinic and to get the results of the histopathological examination. Follow-up outcomes showed more frequent bowel movements which returned to a normalized state after a month.

Macroscopic examination of the specimen showed markedly edematous small intestine. The reduction of invaginated ileum was possible only after enterotomy in ileum. The intussusceptum segment was 50 cm long. The results of microscopic examination were as follows: intestinal mucosa had areas of haemorrhage and necrosis, submucous edema and a marked submucous congestion were observed, minor haemorrhage and local necrosis within the muscular coat of the intestine were detected. No pathological changes were observed in the ileum. No organic lesions that could cause intussusception were detected.

DISCUSSION

Lesions in the intestinal lumen underlie a considerable majority of intussusceptions in adults (1, 3). In distinction to intussusceptions in children, adults have an organic lesion in 70–90% of cases (1). The incidence of the malignant lesions in adults varies from 20–50% cases (1). Up to two-thirds of colonic intussusceptions are found to be associated with primary colorectal carcinoma (3). As many as one-third of enteric intussusceptions are malignant, such lesions are metastases in 70% (3).

Intussusception in the reported case was not of neoplastic origin. Patient's age, the presence of cholecystolithiasis and the clinical picture impeded the correct diagnosis. On a routine abdominal examination performed during surgery the actual lesion was not detected. Good follow-up examination and a decision to repeat laparotomy helped to avoid serious complications. In differential diagnosis it should always be taken into consideration that calculus cholecystitis can coexist with other acute abdominal diseases.

REFERENCES

1. Azar T., Berger D.L.: Adult intussusception. *Ann. Surg.*, 134, 226, 1997.
2. Marinella M.A., Conley C.D.: Intussusception in an adult. *West. J. Med.*, 311, 165, 1996.
3. Stubenbord W.T., Thorbjarnarson B.: Intussusception in adults. *Ann. Surg.*, 306, 172, 1970.
4. Szmídt J. et al.: Niedrożność jelit. *Podstawy Chirurgii, Medycyna Praktyczna*, 468, 2, 2003.

SUMMARY

Intestinal invagination in an adult person is a rare occurrence. It appears in only 1% of patients with ileus. The article describes a case of a 29-year-old woman with ileocolic invagination and coexisting cholelithiasis. Non-typical course of the disease and ambiguous clinical symptoms suggesting gall bladder inflammation were the cause of diagnostic and therapeutic problems.

Wgłobienie krętniczno-okrężnicze u osoby dorosłej rozpoznane w przebiegu pooperacyjnym po cholecystektomii laparoskopowej

Wgłobienie u osoby dorosłej występuje niezwykle rzadko, stanowiąc przyczynę niedrożności jelit zaledwie u 1% pacjentów. W pracy opisano przypadek 29-letniej pacjentki z wgłobieniem krętniczno-okrężniczym i współistniejącą kamicą pęcherzyka żółciowego. Nietypowy przebieg choroby i niejednoznaczne objawy kliniczne sugerujące ostre, kamicze zapalenie pęcherzyka żółciowego były przyczyną trudności diagnostycznych i leczniczych.