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Ileocecal intussusception in an adult: A case report

Erişkinde ileoçekal intusepsiyon: Olgu sunumu

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Intussusception is relatively rare in adults and differs from the childhood form in its etiology, presentation and treatment. Unlike childhood intussusception, adult intussusception is usually due to underlying pathologic lead points, most probably neoplasms. The main clinical presentation of intussusception in the adult is chronic abdominal pain, and acute adult intussusception is uncommon. Here, we describe an uncommon case of acute ileocecal intussusception due to ileal lymphoid hyperplasia in a 46-year-old woman. Lymphoid hyperplasia of the intestines is a benign reactive process. Intestinal lymphoid hyperplasia has been reported in association with infections and as an allergic response to various foods. In adults, it has been reported to occur in association with immune deficiencies. There were no obvious causes for this patient's ileal lymphoid hyperplasia. We conclude that physicians need to consider intussusception, due to intestinal lymphoid hyperplasia, as a possible cause of acute abdominal pain in adults, even in the absence of any specific medical history.

Key words: Intussusception, adult, abdominal pain, lymphoid hyperplasia

İntusepsiyon erişkinde nadirdir ve çocukluk çağına göre klinik görüntü ve tedavi olarak farklılıklar gösterir. Çocuk intusepsiyonundan farklı olarak, erişkinde altta yatan patolojik bir durum vardır ki çoğunlukla neoplasmlardır. Erişkinde ana tablo kronik karın ağrısıdır ve akut intusepsiyon nadirdir. Burada, ileal lenfoid ileoçekal intusepsiyonu sunuyoruz. İntestinal lenfoid hiperplazi infeksiyonlarla beraber olabilir ve çeşitli gıdalara allerjik bir yanıtla ortaya çıkabilir. Erişkinde, immun yetmezlikle beraber rapor edilmiştir. Bu hastada lenfoid hiperplazinin açık bir nedeni yoktu. Sonuç olarak, spesifik bir tıbbi öykü olmasa da, erişkindeki akut karın ağrısında lenfoid hiperplaziye bağlı intusepsiyon düşünülmelidir.

Anahtar kelimeler: İntusepsiyon, erişkin, karın ağrısı, lenfoid hiperplazi

INTRODUCTION

Adult intussusception is uncommon and differs from the childhood form. Its main clinical presentation is chronic abdominal pain. Intussusception in adults is usually due to underlying pathologic lead points (1). Intestinal lymphoid hyperplasia is a benign reactive process and an uncommon cause of intussusception (2, 3). We present a case of adult intussusception probably due to intestinal lymphoid hyperplasia.

CASE REPORT

A 46-year-old woman presented to our emergency medical center with a one-day history of sudden onset abdominal pain. She had had a cesarean section 30 years and a cholecystectomy for gallstones 10 years ago. She had neither previous chronic recurrent abdominal pain nor any recent history of respiratory symptoms such as cough, rhinorrhea, sputum and febrile sensation or gastrointestinal symptoms such as vomiting, diarrhea, bloody stool, constipation and changes in bowel habits. The abdominal pain was crampy and intermittent. Immediately after the pain developed on the day prior to admission, mucoid, but not bloody, diarrhea had occurred, but on the day of visit she had passed no stool or flatus. On physical exam, she had increased bowel sound and severe tenderness and rebound tenderness on the right lower quadrant (RLQ). A soft tender mass was also palpated on RLQ. Vital signs were blood pressure of 120/70

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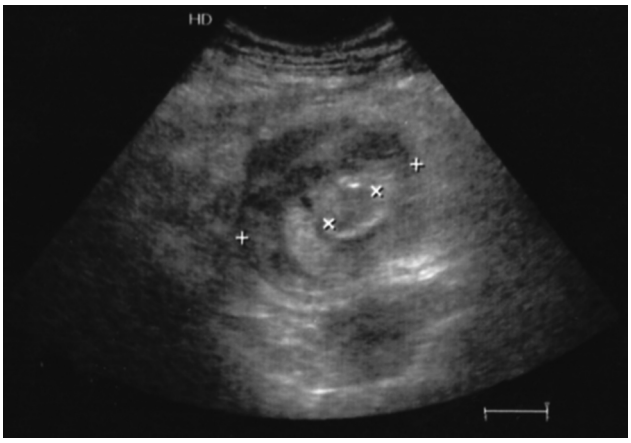

Figure 1. Transverse ultrasound imaging showing a "target sign"

mmHg, heart rate of 72/min, respiratory rate of 20/min and body temperature of 36.8°C. Her complete blood count showed white blood cells of 10,400/µl (neutrophil 83.2%), hemoglobin of 15.5 g/dl and platelets of 201,000/µl. Other blood and urine tests were not remarkable. Simple abdominal radiography was normal. Ultrasonography, performed to further evaluate the palpable mass, tenderness and rebound tenderness on RLQ revealed a 6-cm-sized "target" mass which was presumed to be intussusception (Figure 1). Subsequently performed abdominal computerized tomography (CT) suggested ileocolic intussusception (Figure 2). She underwent laparotomy. During surgery, a 9-cm-segment ileocecal intussusception was seen without a suspected lead point. Right hemicolectomy, including resection of the terminal ileum, was done because of massive edema and color change suspected as necrosis of the ascending colon. The pathology report confirmed ileocecal intussusception, probably due to lymphoid hyperplasia of the terminal ileum around the ileocecal valve. Culture of peritoneal fluid presented no microorganism growth. She made an uneventful recovery.

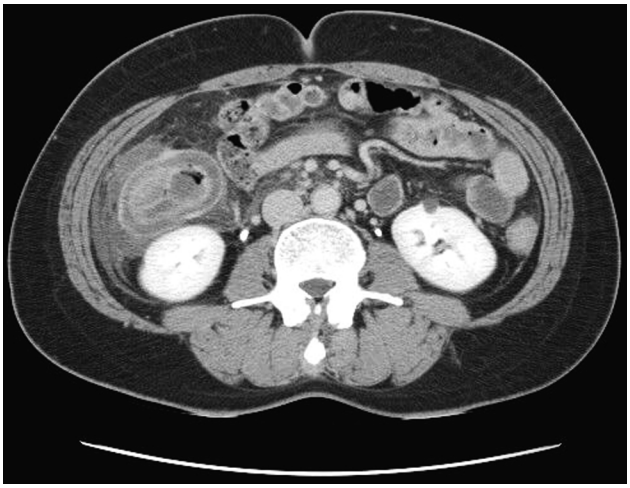

Figure 2. Abdominal CT showing a classic target lesion, suggesting either ileocolic or ileocecal intussusception

DISCUSSION

Adult intussusception occurs infrequently and differs from the childhood form in its presentation, etiology, and treatment. The common intussusceptions have been classified into four categories according to the site of origin: enteric, ileocolic, ileocecal, and colonic. Enteric and colonic cases are those that are confined to the small and large intestine, respectively. Ileocolic intussusceptions are those with prolapse of the ileum into the colon through the ileocecal valve, while ileocecal intussusceptions occur when the ileocecal valve or a lesion in the cecum acts as the lead point and protrudes into the right colon. However, in clinical practice it is difficult to differentiate between ileocolic and ileocecal intussusceptions (1, 4).

Childhood intussusception is idiopathic in 95% of cases, whereas adult intussusception has a definable intraluminal lesion, most probably neoplasm, in over 80% of cases 1,4-8. The majority of intussusceptions arising in the small bowel are due to benign neoplasms. Responsible lesions include lipoma, leiomyoma, hemangioma, adhesions, Meckel's diverticulum, lymphoid hyperplasia, adenitis, trauma, celiac disease, intestinal duplication, and Henoch–Schönlein purpura. Idiopathic small bowel intussusceptions occur 20% of the time, and metastatic melanoma is the most frequent malignancy causing small bowel intussusception. Colonic intussusceptions occur more frequently secondary to malignant lesions, with adenocarcinoma and lymphoma being the most common (5, 6).

Unlike intussusception in children, an acute abdomen is a rare presentation in adults compared with the chronic intermittent type (5, 7). Clinically, the symptoms are the same as those seen for other types of intestinal obstruction. The classic triad of abdominal mass, tenderness, and bloody stools is rarely found (9).

In experienced hands, ultrasound has both high sensitivity and specificity in the detection of intussusception, particularly in children (8). Classic

findings on transverse scanning include a so-called "target lesion" or "doughnut sign", with the presence of several concentric rings. On longitudinal imaging, multiple, thin, parallel stripes of varying degrees of echogenicity with a sandwich-like appearance are typically seen, the so-called "pseudokidney sign". Nevertheless, in the adult population, sonographic findings should be interpreted cautiously, as false positives or false negatives may be produced. Imaging with CT is normally not indicated in children; however, it is useful in adults in both making the diagnosis and assessing an associated underlying cause and lead point (8). CT is thus the diagnosis of choice in adult intussusception (1, 4, 5, 7). The intussusception will appear as a sausage-shaped mass when the CT beam is parallel to its longitudinal axis, but will appear as a "target" mass when the beam is perpendicular to the longitudinal axis of the intussusception (1, 5, 8).

There is no universal agreement on the correct treatment of adult intussusception, although most authors agree that surgical intervention is necessary (10). Nevertheless, reduction of intussusception before resection remains controversial (1).

In the present case, ileocecal intussusception occurred acutely in an adult. There was no suspected lead point except ileal lymphoid hyperplasia around the ileocecal valve. Lymphoid hyperplasia, also known as pseudolymphoma, lymphonodular hyperplasia or terminal lymphoid ileitis, occurs mainly in the rectum and the ileocecal region (2) . The cause of intestinal lymphoid hyperplasia remains uncertain. It has been reported in association with viral, bacterial, or parasitic infections, and as an allergic response to various foods. In adults, it has been reported to occur in association with immune deficiencies such as acquired idiopathic hypogammaglobulinemia or human immunodeficiency virus (HIV) infection (3). Our patient exhibited no other obvious reason for ileal lymphoid hyperplasia.

In conclusion, intussusception should be considered as a possible cause in an adult with acute abdominal pain. The physician needs to consider the possibility of intestinal lymphoid hyperplasia as a cause of intussusception in an adult, even in the absence of any specific medical history.

REFERENCES

1. Toso C, Erne M, Lenzlinger PM, et al. Intussusception as a cause of bowel obstruction in adults. Swiss Med Weekly 2005; 135: 87-90.
2. Yalamarthi S, Smith RC. Adult intussusception: case reports and review of literature. Postgrad Med J 2005; 81: 174-7.
3. Gayer G, Zissin R, Apter S, et al. Pictorial review: adult intussusception--a CT diagnosis. Br J Radiol 2002 Feb; 75: 185-90.
4. Shah RK, Shaw SA, Marroquin S, et al. Adult intussusception as a cause of abdominal symptoms: a case report and review of literature. Emerg Radiol 2003; 10: 53-6.
5. Jabar MF, Prasannan S, Gul YA. Adult intussusception secondary to inflammatory polyps. Asian J Surg 2005; 28: 58-61.
6. Eisen LK, Cunningham JD, Aufses AH Jr. Intussusception in adults: institutional review. J Am Coll Surg 1999; 188: 390-5.
7. Byrne AT, Goeghegan T, Govender P, et al. The imaging of intussusception. Clin Radiol 2005; 60: 39-46.
8. Omori H, Asahi H, Inoue Y, et al. Intussusception in adults: a 21-year experience in the university-affiliated emergency center and indication for nonoperative reduction. Dig Surg 2003; 20: 433-9.
9. Mukhopadhyay S, Harbol T, Floyd FD, Sidhu JS. Polypoid nodular lymphoid hyperplasia of the terminal ileum. Arch Pathol Lab Med 2004; 128: 1186-7.
10. Shteyer E, Koplewitz BZ, Gross E, Granot E. Medical treatment of recurrent intussusception associated with intestinal lymphoid hyperplasia. Pediatrics 2003; 111: 682-5.