

# Ileocolic intussusception due to ileal lymphoma (Case report)

İleal lenfomaya bağlı gelişen ileokolik intusussepsiyon

Hasan AYDEDE<sup>1</sup>, Aslan SAKARYA<sup>1</sup>, Yamaç ERHAN<sup>1</sup>, Özer İLKĞÜL<sup>1</sup>, Eray KARA<sup>1</sup>, Mine ÖZKUL<sup>2</sup>

Celal Bayar University School of Medicine, Departments of Surgery<sup>1</sup> and Radiology<sup>2</sup>, Manisa

*Intussusception occurs rarely in adults. It presents with a variety of acute, intermittent, and chronic symptoms, thus making its preoperative diagnosis difficult. In adults, intussusceptions are mostly caused by organic lesions and the majority of these lesions are benign tumours. Computed tomography scanning and endoscopy have proved to be the most useful diagnostic methods. Confirmation of diagnosis and treatment of adult intussusception is surgical, with surgical resection of the intussusception without reduction being the preferred treatment in adults, as almost half of both colonic and enteric intussusceptions are associated with malignancy. We report the case of a patient with ileocolic intussusception due to an ileal lymphoma.*

Keywords: Intussusception, ileum, lymphoma.

*Erişkinlerde intusussepsiyon nadir olarak karşımıza çıkar. Akut, intermitan ve kronik semptomlarla ortaya çıktığından preoperatif tanısı oldukça güçtür. Erişkinlerde intusussepsiyonun nedeni sıklıkla benign organik lezyonlardır. Bilgisayarlı tomografi ve endoskopi en sık kullanılan tanısal amaçlı yöntemlerdir. Intusussepsiyonun asıl tanı ve tedavi yöntemi cerrahidir. Kolonik ve enterik intusussepsiyonların çoğunun malign karakterde olduğu düşünüldüğünde redaksiyon uygulamaksızın yapılan rezeksiyon işlemi uygun cerrahi yöntemi olarak kabul edilmektedir. Çalışmamızda ileal lenfomaya bağlı gelişen ileokolik intusussepsiyon olgusunu sunmaktayız.*

Anahtar kelimeler: Intusussepsiyon, ileum, lenfoma.

## INTRODUCTION

The main cause of adult intussusception is usually an organic lesion. Although it is a benign lesion in enteric, ileocolic and ileocaecal intussusceptions, it is frequently malignant in colocolic intussusceptions (1,2). In our patient, a diagnosis of ileocolic intussusception due to an ileal lymphoma, was made on the basis of findings at colonoscopy and computerized tomography. Right hemicolectomy and ileotransversostomy were performed.

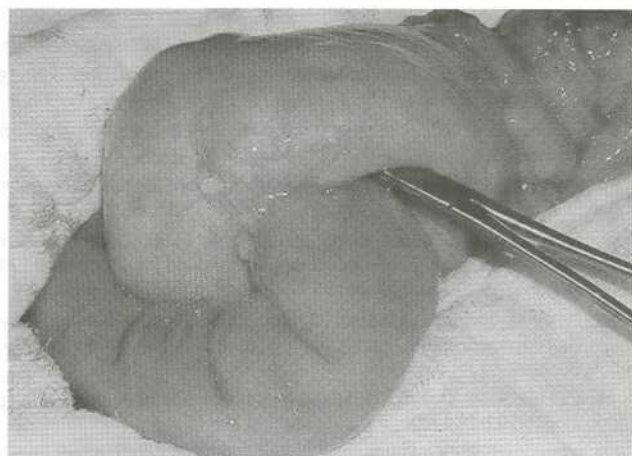
## CASE REPORT

A 52 year-old male was admitted to our hospital with abdominal pain and weight loss. On physical examination, a palpable mass was found at right fossa. Laboratory examination revealed a high leucocyte level (18.000 mm<sup>3</sup>) blood hemoglobin level of 7.0g/dl, total protein 5.8 g/dl and albumin 2.6 g/dl. Abdominal computerized tomography

revealed a pseudokidney image at the level of right colon (Figure 1). At colonoscopy, the last ileal loop was intussuscepted into the right colon and an ulcerative lesion was seen in the ileal mucosa. Exploratory laparotomy revealed an irreducible ileocolic intussusception and a right hemicolectomy was performed. Macroscopically, the 4.5x4.0x4.0 cm solid tumor of the ileum was intussuscepted into the right colon within the last 10 cm of ileal segment (Figure 2). Histopathological examination revealed a diffuse large B-cell non-Hodgkin lymphoma of the ileum that showed serosal and with vascular invasion and 19 of 56 lymph nodes infiltrated by tumor cells. The clinical and laboratory findings were compatible with primary intestinal lymphoma. The postoperative course was uneventful and chemotherapy was planned following surgery.



**Figure 1.** Pseudokidney image on CT.



**Figure 2.** Macroscopic appearance of ileocolic intussusception.

## DISCUSSION

Intussusceptions are classified according to location, with the most common classification system divides intussusception into four categories: enteric, ileocolic, ileocecal, and colonic (3-6). Enteric and colonic intussusceptions are those that are confined to the small intestine and large intestine, respectively. Ileocolic intussusceptions are defined as those with prolapse of the ileum through the ileocaecal valve into the colon and these constitute 15% of all intussusceptions. The ileocaecal valve and the appendix preserve their normal anatomic position and the organic lesion is usually in the ileum (2,7). These organic lesions are mostly benign although malignant lesions, can also be seen (3,8,9-13). After appendectomy the appendice stump has also been reported to cause ileocaecal intussusception (14).

Lymphomas constitute 10%-15% of small-bowel malignant tumors in the adult. They are commonly found in the ileum, where the greatest concentration of gut-associated lymphoid tissue is present, and they may be primary or part of systemic

disease (15). In this case it was a primary intestinal lymphoma.

Symptoms of intussusception in adults are non-specific and diagnosis is generally made during laparotomy. In 25% of patients, intestinal obstruction, rectal bleeding and a mass in the abdomen is seen (2,7).

Barium enema, CT and colonoscopy are helpful in diagnosis (2,16-18), with barium enema being the most important diagnostic tool. It may show the characteristic "coiled spring" or "spiral sheath" appearance, or a mushroom or crescentic shaped appearance at the level of obstruction (2,3). Pseudokidney and spiral images of intestinal loops are specific CT signs. Endoscopy can be used for definitive diagnosis of intestinal intussusceptions (2,19).

In adult intussusceptions, the treatment of choice is surgical, with resection of all intussusceptions without intraoperative reduction being advocated. The type of surgical intervention is based on the patient's medical history and intraoperative findings (1,3).

## REFERENCES

1. Agha F. Intussusception in adults. *AJR* 1986; 146:527-31.
2. Orlando R. Intussusception in adults: Bowel obstruction: Differential diagnosis and clinical management. Welch J P(Ed) WB.Saunders Company, Philadelphia, 1990.
3. Taraneh A, Berger BL. Adult intussusception. *Ann Surg* 1997; 226:134-40.
4. Briggs DF, Carpathios J, Zollinger RW. Intussusception in adults. *Am J Surg* 1961; 101:109-13.
5. Nagorney DM, Sarr MG, McIlrath DC. Surgical management of intussusception in the adult. *Ann Surg* 1981; 193:

- 230-6.
6. Weilbaeher D, Bolin JA, Hearn D, Ogden W. Intussusception in adults: review of 160 cases. *Am J Surg* 1971; 121:531-5.
7. Stubenbord WT, Thorbjarnarson B. Intussusception in adults. *Ann Surg* 1970; 172: 306-10.
8. Youngson GG. Small bowel lymphoma presenting as chronic adult intussusception. *Scott Med J* 1981; 26: 260-1.
9. Bazzocchi R, Palmieri V, Lafratta V, et al. Ileo-ceco-colic invagination. A proposal of a case caused by lymphoma of the last ileal loop. *Minerva Chir* 1980; 15:35:1295-302.
10. Acay M, Polat M, Çadırcı M, Gencer B. Tumor-induced ileo-ileal invagination invagination in adults. *Am Surg* 1994; 60: 980-81.
11. Cotlar A.M. Cohn I. Intussusception in adults. *Am J Surg* 1961; 101:114-20.
12. Nincheri K.M, Evaristi L, Spadoni R. Lipoma of small intestine as a rare cause of intestinal occlusion. *Minerva Chir* 1994; 49: 859-65.
13. Dharia K,M, Marino W, N, Manchini HW. Enterocolic intussusception in adults. *Dis Colon Rectum*. 1972; 15:194-200.
14. Wolfson S., Sachor D, Freund U. Ileocolic intussusception in an adult. A postoperative complication of appendectomy. *Dis Colon Rectum* 1984; 27:265-66.
15. Mark Evers B, Courtney M, Townsend Jr, JC Small intestine: Lymphoma. Seymour I. Schwartz(ed); Principles of surgery 7th ed. 1999; 1244.
16. Abiri S, Baer J, Abiri M. Computed tomography and sonography in small bowel intussusception: a case report. *Am J Gastroenterol* 1986; 81:1076-7.
17. Hurwitz LM, Gertler SL. Colonoscopic diagnosis of ileocolic intussusception. *Gastrointestinal Endoscopy* 1986; 32: 217-8.
18. Iko BO, Teal JS, Siram SM. Computed tomography of adult colonic intussusception: clinical and experimental studies. *AJR* 1984; 143:769-72.
19. Domjan L, Baltas B. Chronic recurrent jejuno gastric intussusception-diagnosed by gastroscopy. *Endoscopy*, 1975; 7:105-8.