

Giant Ileal Tubular Duplication Causing Urinary Obstruction : a Very Rare Complication

Dr. M. Harun Gürsoy¹, Dr. Uğur Koltuksuz¹, Dr. Sema Uğuralp¹, Dr. Mustafa Aydınç¹

Duplications of the gastrointestinal tract are congenital anomalies that are rarely and often incidentally found. They can produce symptoms of gastrointestinal obstruction or can be asymptomatic for a long period of time and found during a diagnostic workup, laparotomy or laparoscopy for other reasons. They may have a gastric mucosal lining which may lead to bleeding or perforation. Very rarely, they may be of a giant size or may be found to extend from the thoracic cavity to the abdomen or vice versa. This kind of duplication may cause symptoms of respiratory distress because of increased intraabdominal pressure causing elevation of the hemidiaphragms or thoracic involvement. A giant ileal duplication in a one year old male child was found to be lodged in the lower abdomen and pelvic cavity. In addition to gastrointestinal obstruction, abdominal distention and respiratory distress, the patient had bilateral pelviureteral obstruction that was verified by ultrasonography, intravenous pyelography together with voiding cystourethrography. In the literature reviewed, this phenomenon was encountered with a very low frequency and we were not able to detect one in the recent literature. [Journal of Turgut Özal Medical Center 1997;4(2):203-205]

Key Words: Duplication, urinary obstruction, congenital anomaly

Üriner obstrüksiyon yapan dev ileal tübüler duplikasyon : çok nadir bir komplikasyon

Gastrointestinal sistem duplikasyonları nadir görülen konjenital anomalilerdir ve çoğunlukla tesadüfen tanı konur. Gastrointestinal obstrüksiyon semptomları oluşturabilirler veya çok uzun bir süre asemptomatik kalabilirler ve başka bir sebeple olan tanısal girişimler, laparotomi veya laparoskopi sırasında rastlanabilirler. Kanamaya veya perforasyona neden olabilecek şekilde gastrik mukoza ile döşeli olabilirler. Çok nadiren dev boyutlara ulaşabilirler, toraks boşluğundan abdomene doğru uzanabilirler. Bu şekildeki bir duplikasyon karınıçi basıncını artırıp diafragmaları yükselteceği için veya göğüs boşluğunda yer kapladığı için solunum sıkıntısı yaratabilir. Bir yaşında bir erkek çocukta alt karın bölgesini ve pelvisi dolduran dev bir ileal duplikasyon saptandı. Hastanın intestinal obstrüksiyon, abdominal distansiyon ve respiratuar distress bulgularının yanında ayrıca ultrasonografi, intravenöz pyelografi ve voiding sistourethrografi ile saptanan bilateral üreteropelvik obstrüksiyon da mevcuttu. Literatürde buna benzer şekilde tanımlanmış çok az sayıda vaka bulduk ve yakın zamandaki literatürde bu tablonun benzerine rastlayamadık. [Turgut Özal Tıp Merkezi Dergisi 1997;4(2):203-205]

Anahtar Kelimeler: Duplikasyon, üriner obstrüksiyon, konjenital anomali

Duplications of the alimentary tract are rare (1). Diagnosis is often only made intraoperatively as they do not feature strongly in the differential diagnosis (2). They may require surgical

intervention in the neonate, infant or occasionally in the older child (3). The clinical presentation of patients with alimentary tract duplications includes bleeding, abdominal pain, intussusception and

¹ İnönü University, School of Medicine, Department of Pediatric Surgery, Malatya

respiratory distress or it may be an incidental finding either in abdominal examination or chest X-ray or even surgical interventions (2,3). Obstruction of the gastrointestinal tract is an expectable finding in alimentary tract duplications since it is a pathological entity directly in relation to the GI tract. What is unexpected may be the obstruction of the urinary system by the same pathology.

An 8 months old infant with a giant ileal duplication causing both gastrointestinal and urinary system obstructions is presented with a discussion of the case and review of the literature.

CASE

8 months old male was admitted to our hospital with a history of abdominal distention and bilious vomiting with no passage of stools. The patient was in poor condition, with tachypnea, peripheral cyanosis and pallor.

Physical examination revealed a giant intraabdominal mass occupying entire lower abdomen, causing an extremely distended abdomen and respiratory distress.

Biochemical tests revealed a severe hyponatremic dehydration. Renal function tests, liver function tests were performed and results were within normal range. Complete blood count showed a white cell count of $25.000/mm^3$ with normal platelets.

In the radiological studies, erect abdominal anteroposterior X-rays showed intestinal obstruction and a mass filling the whole lower abdomen. Barium enema showed the cecum displaced and located at the left upper quadrant.

Ultrasonography revealed right pelvicalyceal ectasia and right ureteral dilatation other than intestinal obstruction. Intravenous pyelography showed ectatic changes both in the kidneys and ureters bilaterally with compression of both ureters against the pelvic brim (Figure 1).

The emergency laparotomy after an aggressive resuscitation showed a giant tubular duplication of the ileum about 10x 15 cm in size and the perfusion of the mesenteric circulation was disturbed. After resection of the intestinal segment with the pathology, a double barrelled ileostomy was performed.



Figure 1. Bilateral dilated pelvicalyceal systems, obstructed ureters and displaced colon in simultaneous intravenous pyelography and barium enema studies.

DISCUSSION

Duplications of the gastrointestinal tract are congenital anomalies that are found rarely and often incidentally. They can present a diagnostic as well as a therapeutic challenge (4,5). They can produce symptoms of gastrointestinal obstruction or can be asymptomatic for a long period of time and found during a diagnostic workup, laparotomy or laparoscopy for other reasons. They may have a gastric mucosal lining which may lead to bleeding or perforation. One of the most serious complications they can cause is volvulus of the gastrointestinal tract that can result in total loss of midgut. Very rarely, they may involve the hindgut and exist with severe genitourinary anomalies (6).

Very few of them may be of giant size or may be found to extend from the thoracic cavity to the abdomen or vice versa. This kind of duplication may cause symptoms of respiratory distress because of increased intraabdominal pressure causing elevation of the hemidiaphragms or reducing the intrathoracic volume by keeping place in the thorax (7). A very rarely encountered complication in this kind of abnormality is obstruction of the urinary

tract by the mass. In the literature reviewed, this phenomenon was encountered for colonic duplications only (8). We were not able to detect a case with a small intestinal duplication reported to cause urinary obstruction.

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Correspondence :

Ass.Prof.Dr. M. Harun GÜRSOY
Turgut Özal Medical Center
Dept. of Pediatric Surgery
44100 MALATYA
Tel: 422- 3410709
Fax: 422- 3410709