

Association of Rectal and Bladder “Ears”: Is It A Transient Variant of Normal, or A Pathological Entity?

Rektum Ve Mesane Kulağı Birlikteliği: Geçici Bir Varyant mı Yoksa Patolojik Bir Durum mu?

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In a three-month-old boy with right renal multicystic dysplasia and inguinal hernia, rectal and bladder “ears” were encountered during evaluation for chronic constipation and vesicoureteral reflux. The etiology and clinical importance of these radiological observations are discussed.

Key Words: **Rectal “ears”, bladder “ears”, child**

Sağ multikistik displastik böbrek ve kasık fıtığı nedeniyle takip edilen üç aylık erkek bebekte, kronik kabızlık ve vezikoureteral reflü açısından yapılan değerlendirmede, rektum ve mesane kulağı tespit edildi. Bu radyolojik bulguların etiyojisi ve klinik önemi tartışılmak istendi.

Anahtar Kelimeler: **Rektal kulak, mesane kulağı, çocuk**

Rectal and bladder “ears” which has been regarded as transient protrusions of rectum and bladder wall are very rare entities described only in infants. Etiology and clinical importance of these radiological observations are unclear in the scarce number of reports in literature (1-4). Although it is reported that bladder “ears” usually observed during voiding cystourethrograms and if not recognized may cause bladder injury during inguinal hernia repair (1), there is no knowledge about the rectal “ears” other than they may be observed intermittently during barium enema (3, 4). The case of a 3-month-old boy with right renal multicystic dysplasia, and both rectal and bladder “ears” is herein reported in which we discussed the etiology and clinical importance of these radiological findings.

Case Report

A three-month-old boy with right renal multicystic dysplasia was referred to our department for right inguinal hernia repair and intractable constipation. There was infrequent stooling once a week while breast-feeding. Laxatives were commenced at the age of 2- months but were found to be decreasingly effective. Following inguinal hernia repair barium enema and anorectal manometry was performed to rule out Hirschsprung’s disease. At fluoroscopy, lateral protrusion of the rectal wall which was intermittent and appeared with contractions of levator ani was observed (Figure1a, 1b). Rectoanal inhibitory reflex was present on anal manometry. Voiding cystourethrography which was performed to evaluate vesicoureteral reflux revealed lateral protrusions of the bladder

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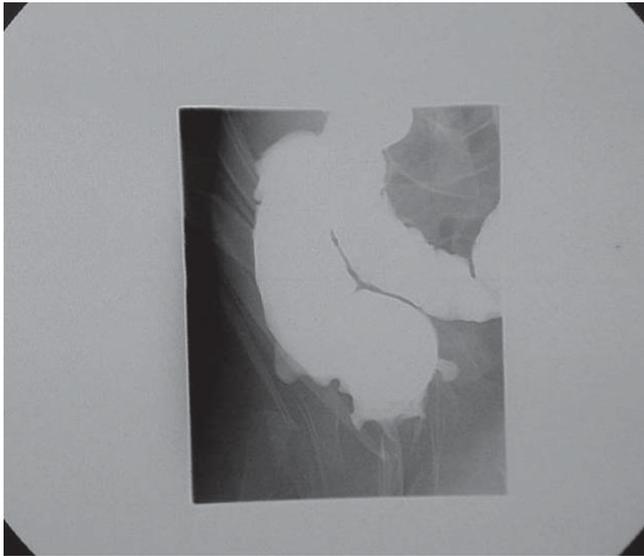


Figure 1a, 1b: Lateral protrusions of rectal walls which were intermittent and appeared with contractions of levator ani.



Figure 2: Voiding cystourethrography, oblique radiography reveals anterolateral protrusions of bladder through internal inguinal ring.

through the internal inguinal ring (Figure 2). Patient's constipation was resolved 2 months after the commencement of a regular enema plan in addition to laxatives. He was given antibiotic prophylaxis for urinary tract infections. The patient was still doing well on his 6-month follow-up.

Bladder "ears" are rarely seen in the first six months of life on voiding cystourethrograms and represents a transient extraperitoneal protrusion of bladder wall into internal ring (1). They are frequently bilateral and disappear with voiding and complete filling of the bladder. In infants, bladder assumes a more abdominal position, which places it in close proximity to in-

Discussion

There is no knowledge in literature answering the question if rectal and bladder "ears" are variant of normal anatomy or real pathological entities requiring treatment. Moreover the role of altered embryogenesis leading to rectal and bladder "ears" is a matter of speculation, and there is no clue indicating an embryologic cause of these lesions.

ternal inguinal ring. With growth, the pelvis becomes more developed, and bladder assumes a more pelvic position. Therefore, bladder "ears" are rarely observed in adults. Knowledge of this entity is important to surgeons during inguinal herniotomy because of bladder injury may occur in presence of bladder "ears" (1).

As far as we know there are three reports of rectal "ears" observed in a 3-month-old, 6-month-old and 16-month-old female all with history of constipation. Depending on these reports, rectal "ears" are intermittent protrusion of rectal wall observed synchronous with contraction of levator ani (2-4). The appearance and location of these rectal wall protrusions are similar to the more commonly observed bladder "ears" and represent rectal "ears". The similarities between our case and these reported cases are the presentation with constipation and same radiological observation. An explanation for rectal "ears" could be that different localization of peritoneal reflections around rectum allowing more mobility than normal. Contraction of levator ani therefore pulls rectum

anteriorly and leads to transient herniation of rectal wall into deep inguinal ring (4). The weakness of perirectal supportive tissues resulting in extensive mobility of rectal wall and leading protrusion during first year of life might be another explanation for rectal "ears". Depending on literature and our case it is evident that rectal "ears" may cause constipation. The reason why they cause constipation is unclear. It might be speculated that they may interfere propulsion of rectal contractions resulting in constipation. The association of both rectal and bladder "ears" in our patient raises the query if there is a real ethological connection between bladder and rectal

"ears". There are many similarities between rectal and bladder "ears" such as intermittent protrusion of rectal or bladder wall into deep inguinal ring and transient presentation in the first year of life. The only difference between them is the lack of anatomic confirmation of rectal "ears" whereas protrusion of bladder "ears" to internal inguinal ring and bladder injury during inguinal hernia repair has been reported (1). Both weakness of supportive perirectal tissue or different orientation of peritoneal reflexions might result in rectal and bladder "ears" in the same patients. Voiding cystourethrography which revealed bladder "ears" was indicated in our case because of

the presence of the renal pathology and urinary infection.

From clinical point of view rectal "ears" might cause refractory chronic constipation in the first year of life. Therefore rectal "ears" should be considered in differential diagnosis of constipation encountered in infancy. Conservative treatment of constipation might be sufficient because they usually disappear by growth and development. Bladder "ears" should be suspected during inguinal hernia repair in infants to avoid bladder injury. During radiological evaluations care should be taken not to mistake bladder and rectal "ears" for diverticula.

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