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Confusion about the cause of constipation in milder types of congenital anal malformations

Meltem Kaba

1. Department of Pediatric Surgery, Sisli Hamidiye Etfal Training and Research Hospital, İstanbul, Turkey.

***Corresponding author:** Meltem Kaba; **Email:** meltemkaba@windowslive.com

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1. To the editor-in-chief

As a pediatric surgeon, I have read your case titled "Giant megacolon caused by anterior displacement of the anus in a 71-Year-old woman" (1) with great interest. I would like to extend my congratulations to the authors and editors for this successful article and offer some contributions. There is limited information in the literature about the long-term follow-up of patients with an anteriorly located anus. This case appears to be the oldest patient in the literature to be diagnosed with this anomaly and to have had the longest follow-up. In this respect, the case holds significant value.

Anteriorly located anus (AA) is a situation we frequently encounter in pediatric surgery practice. Despite some confusion in terminology within the literature, based on current knowledge, AA is defined as a normal variant of an anus located more anteriorly along the perineal body, with a normal caliber, completely surrounded by the anal sphincter complex.

In the largest systematic review by Sharma and colleagues, an anal position index (API) less than 0.43 in males and 0.34 in females is defined as AA (2). Herek evaluated the incidence of AA and its relationship to constipation in 357 children admitted to the hospital with unrelated disorders. The incidence of anterior displacement of anus (ADA) was 43.4% in girls and 24.6% in boys. However, the incidence of constipation in children with a normal API and those with a low API indicative of an ADA was not significantly different. These findings suggest that ADA is a common variant of the normal anatomical location of the anus, especially in girls (3). According to a long-term study by Kyrklund and colleagues, constipation tends to decline with age in ADA and can be successfully managed through medical treatment (4). Since the introduction of the API, many authors have confirmed that it is age- and ethnicity-independent. By using the API as a diagnostic tool, AA was diagnosed with an incidence of 24.6% in otherwise healthy boys and 43.4% of girls, indicating it is a common anal abnormality. In contrast, Núñez-Ramos and colleagues investigated the API in more than 1,000 newborns in two European hospitals. They reported a significantly lower incidence of AA (2.27%–2.84% in females and 1.14–2.10% in males), which corresponds to the expected statistical incidence of 2.28%, assuming a normal distribution. They consider AA to be the probable cause of defecation disorders (5). In fact, several recent reports have not observed a significant association between AA and constipation. On the other hand, some authors have reported a high prevalence of chronic constipation, as high as 47% in females and 35% in male AA patients aged 3 months to 12 years. An attempt to clarify the confusion regarding terminology, diagnosis, and treatment of congenital diseases of the anal opening, the Arm-net consortium consensus, found that children with AA have been reported to experience normal bowel control and a normal stooling pattern (6).

However, in some cases, defecation disorders may develop in certain patients. AA was often considered the cause of chronic constipation in many patients who presented with a large cul-de-sac and were candidates for surgical management. However, cases of AA and perineal fistula are often not clearly distinguished from each other in most of the literature, leading to pooled therapeutic results. There are significant differences in API ranges and the relationship between AA and constipation in various articles. It's possible that the diagnosis of cul-de-sac or perineal fistula is missed, which may be the primary clinical difference rather than the API.

The terms "anterior anus," "anterior displacement of the anus," "anteriorly displaced anus," "anteposition of the anus," "anterior ectopic anus," "ectopic anus," "anterior perineal anus," or "anus perinei ventralis" have been variably used to describe either patients with AA or patients with a bowel opening not completely surrounded by the sphincter muscle complex (PF). AA and PF are often lumped together, leading to unclear information on symptoms and outcomes.

Cases of redundant colon due to chronic constipation often result in a long dilated sigmoid colon. It is surprising that the dilatation progressed to the cecum in this case. However, a question arises as to whether more protective measures can be taken for the proximal colon. The colon would be expected to return to normal calibration quickly after discharge began. In the current situation, assuming that the patient will not be left with a permanent ileostomy, it is respectfully recommended not to close the ostomy without performing an anoplasty surgery. This decision should be based on an examination of the anal sphincter with a stimulator or anal ul-

trasonography and consultation with a pediatric surgeon experienced in congenital diseases of the anus.

2. Declarations

2.1. Acknowledgement

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2.2. Conflict of interest

None.

2.3. Funding

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References

1. Farhangian M, Ahmadi-Amoli H, Rahimpour E. Giant megacolon caused by anterior displacement of the anus in a71-year-old woman. Front Emerg Med. 2022;6(3):e43.
2. Sharma S, Perumal V, Sharma K, Gupta DK. Varied parameters and utility of the anal position index: a systematic review and meta-analysis. Pediatr Surg Int. 2021;37(4):469-77.
3. Herek Ö,Polat A .Incidence of anterior displacement of the anus and its relationship to constipation in children . Surg Today. 2004;34(2):190-2.
4. Kyrklund K, Pakarinen MP, Taskinen S, Rintala RJ. Bowel function and lower urinary tract symptoms in females with anterior anus treated conservatively: controlled outcomes into adulthood. J Pediatr Surg. 2015;50(7):1168-73.
5. Núñez-Ramos R, Fabbro MA, González-Velasco M, et al. Determination of the anal position in newborns and in children with chronic constipation: comparative study in two European healthcare centres. Pediatr Surg Int. 2011;27(10):1111-5.
6. Amerstorfer EE, Schmiedeke E, Samuk I, et al. Clinical differentiation between a normal anus, anterior anus, congenital anal stenosis, and perineal istula: definitions and consequences-The ARM-Net Consortium Consensus. Children (Basel). 2022;9(6):831.