LETTER TO EDITOR

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Evaluation of Patients With Congenital Anal Stenosis, Single Center Study

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Dear Editor,

Although constipation is a common complaint in the pediatric population, some causes are still rare.

Anal stenosis is a rare condition characterized by the narrowing of the anal canal. This may cause constipation, pain, bleeding with defecation, and a decrease in stool caliber. While anal stenosis can be congenital, it may occur after radiotherapeutic or surgical interventions to the anal region, or a sequela of Crohn's disease, long-term use of laxatives, and very rarely tuberculosis and other infections.[1]

Congenital anal stenosis (CAS) is a rare condition in which the anus is narrow and located in its normal position, surrounded by the sphincter muscle complex. Sometimes a membrane near the dentate line may accompany.[2]

Diagnosis is mainly clinical. The stenosis observed during the visual examination of the anus may be confirmed by the formula: expected anal caliber (mm) = 1.34 × body weight (kg) + 6.8.[3,4]

Treatment is initially conservative, such as regulating stool passage through hydration, dietary fibers, and bulk-forming laxatives. Anal dilatations are intermediate interventions between conservative treatment and surgery. In severe cases, surgical treatment should be considered. The most severe cases require anoplasty with mucosal or anal flaps.[5]

Here we report our preliminary results of anal dilatation in CAS in children under 12 months of age.

Methods

Twenty-seven patients who were referred to our hospital between 2018 and 2022 were clinically diagnosed with CAS. No other accompanying malformations were found in systemic evaluation for VACTERL deformities. Patients in the study group showed normal localization of the anus with normal external sphincter function. None of the patients had a presacral mass or sacral deformity, the Currarino's triad was excluded by pelvic ultrasound and radiographs. Gender, age, complaint, treatment method, number of treatment sessions, and post-treatment follow-up were evaluated.

Twenty-one patients were first seen by the pediatric gastroenterologist, and 6 were seen by the pediatric surgeon. Eighteen of the patients were male and 9 were female. The age ranged between 34 and 204 days (71.8 ± 28.7). The most common symptoms were straining during defecation, flatulence, bloody stools, and sleeping disorders.

The patients were diagnosed by physical examination, the anus was in the normal location, surrounded by the external anal sphincter checked by cotton swab reflex. The stenosis of the anal canal was confirmed with the body-weight-appropriate bougies.

Increased hydration and laxatives were advised primarily to all of the patients without success. The second stage of the treatment involved dilatation of the anal canal with a Hegar bougie without anesthesia, performed by the pediatric surgeon in the clinic while the patient's parents were present. The treatment modality was anal dilatation for approximately 2 minutes. The bougies most commonly used were between no.: 1007-1012. The patients were dilated once every 8 days. This process was continued for an average of 8 weeks (minimum 6, maximum 10 weeks). During the dilatation, the smaller caliber than the calculated norm was introduced in a slow fashion and gradually increased to a weight appropriate one. No bleeding or pain was observed during the dilatations.

Results

Dilatation ensued until the anal caliber reached normal levels in respect of weight. The patients were followed up in terms of growth and development, stool pattern, and straining during defecation. Families made a stool calendar. Most of the symptoms, such as constipation and straining during defecation, resolved after the fourth dilatation. None of the patients required surgery.

Late anal fissures occurred in 4 patients healed with dexpanthenol, 5% lidocaine ointment, and hot sitz baths. There were no other complications. The stool patterns of the patients who are still in follow-up (longest follow-up 43 months) in our hospital are normal.

Conclusion

CAS is a condition that impairs the quality of life if left untreated. The anal region should be examined carefully in children who are admitted to the hospital due to difficulty in passing stools and gas. The Hegar bougie dilatation is both diagnostic and therapeutic in isolated CAS patients who do not have other accompanying anomalies.

Declarations

Ethics approval and consent to participate

Written informed consent was taken from the parents and ethical approval was obtained from Yeditepe University Ethics Committee with application number 202210Y0306.

Consent for publication

Consent for publication was provided by the parents.

Author contribution(s)

ŞK: conceptualization, resources, supervision, writing—original draft, writing—review & editing. DY: data curation, writing—original draft. MU: conceptualization, visualization, writing—review & editing.

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