Perineal Groove and Perineal Canal

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ABSTRACT: Perineal groove is a rare congenital wet sulcus extending from the fourchette to the anus. With awareness of the lesion, surgery can be avoided. Perineal canal is a congenital anorectovestibular fistula co-existent with normal anus. Recently, it has become evident that these lesions are relatively common and clinically important variants of anorectal anomalies. We now report one patient each with these anomalies and briefly review the surgical problems.

KEY WORDS: perineal groove, perineal canal, anorectal anomalies

Perineal groove and perineal canal are congenital anomalies which have been classified into rare miscellaneous deformities in the Proposed International Classification of Anorectal Anomalies. Awareness of perineal groove will make surgery redundant. Congenital rectovestibular fistula coexistent with a normal anus was first reported by Bryndorf and Madsen. Thereafter, the anomaly has been reported by several authors and under various nomenclatures. Chattergee and Talukder reported seven cases of this anomaly under the name of "double termination of the alimentary tract" and established it as an clinical entity. Stephens and Smith named the anomaly "perineal canal." White et al. reported two cases under the term of "congenital N-type anovestibular fistula". Sai et al. collected fifty-five cases of congenital rectovestibular fistula with a normal anus, including five personal cases reported in the Japanese literature. The incidence of the anomaly is equivalent to 6.1 per cent (35 out of 570) of anorectal anomalies. Chattergee also reported the incidence of 8.5 per cent (18 out of 211) of anorectal anomalies in females. Thus, it has become evident that this lesion is a relatively frequent and clinically important anomaly. We now report one patient each with these anomalies and briefly discuss the clinical problems.

CASE REPORT

Case 1 (K.K.)

An otherwise healthy 2 month old girl was noted to have a red perineal "wound" shortly after birth. Examination revealed a longitudinal red, wet cleft extending from the vaginal fourchette to the anterior border of an anus. Anterior half of the anal verge was formed by the posterior end of the cleft, and anal mucosal prolapse was noted with straining. There was neither bleeding nor maceration of the cleft (Fig. 1). A wait and see policy was advised. The red color of the cleft gradually faded at about 1 year of age. She has not experienced any perineal bleeding, maceration and difficult defecation for the first 6 years of her life.

Case 2 (N.F.)

A full-term Japanese girl who otherwise
was healthy presented at 3 months of age with passing liquid or tooth-paste-like feces through the vagina, sometimes during defecation and sometimes independently from defecation during the preceding 4 weeks.

On examination a small orifice in the midline at the vestibule was noted and through which a No. 5 Nelaton catheter could be passed easily into the rectal lumen. There was no evidence of inflammation on and around the fistula. Conservative treatment was prescribed for one year but difficulties persisted (Fig. 2).

She was operated on at 14 months of age by the method described by Chattergee and Talukder, namely, vestibulo-rectal pull-through repair. The fistulous tract was indurated by $0.6 \times 2$ cm and the rectal orifice was located just above the dentate line. After dissection, the fistula was inverted and drawn back into the rectal lumen. Double transfixation ligations at its base were made using 4-0 Tevdec and the redundant tract was excised for histopathological Study. The postoperative course was uneventful without wound break-down, and no recurrence of the fistula was observed for 17 months. Histologically, the fistulous tract consisted of a thick fibrous wall with a lumen covered with squamous epithelium but without inflammation-related change.

**DISCUSSION**

A perineal groove is a congenital wet sulcus lined with mucous membrane, extending from the fourchette to the anus. This rare anomaly probably results from a fusion failure of genital folds during the embryonic development of the perineum. Clinically, the anomaly has three common features: 1) normal urethra and vagina; 2) hypertrophic minoral tails which surround the sulcus; and 3) a wet sulcus. The groove is variable in length and depth. Treatment is not required for this anomaly. Wet groove becomes epithelialized in time, as was the case in our patient.

Congenital fistula between the bowel and the vestibule consists of rectovestibular and anovestibular types. The former fistula originates from the anterior rectal wall above the levator ani muscle and the latter from the anatomical anal canal at the infralevator level. Chattergee called the former and latter high and low 'H' type fistulas, respectively. He stated that the latter should be more properly termed "perineal canal". His own patients included high and low types, in the same frequency. In the majority of patients, the anus was normal, but anorectal anomalies were sometimes present.