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Anal atresia with transscrotal fistula

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Abstract This report describes four infants born with an imperforate anus associated with a transscrotal fistula. This variant appears to be a low anomaly, but should be treated as an intermediate anorectal malformation.

Key words Anal atresia • Transscrotal fistula • Child

Introduction

The ultimate goal of operative correction of anal atresia is the creation of a normally functioning anus. For this purpose, it is important to make the distinction between low and high or intermediate anorectal anomalies. In cases of low anal atresia most pediatric surgeons recommend perineal anoplasty. Although recognition of the type of atresia may be difficult, in general anal atresia with a perineal fistula in boys is regarded as a low anomaly, suitable for local anoplasty.

Between January 1970 and December 1993, we treated 259 patients with anal atresia in the Pediatric Surgical Center Nijmegen, The Netherlands. In 4 boys there was a fistulous opening on the raphe of the penis, running through the scrotum and opening in the anorectum. After having erro-
Discussion

In general, a male patient with anal atresia and a perineal fistula is regarded as having a low anorectal malformation and most often treated by perineal anoplasty. In our series we found four patients who appeared to have low anal atresia with a perineal fistula that proved to be at least an intermediate type with a transscrotal fistula. The fistula runs through the scrotum parallel to the urethra from the rectal pouch to the raphe of the penis; from there it may follow the raphe subcutaneously for some distance.

In the pediatric surgical literature we found only two reports of anal atresia with a transscrotal fistula, one as a personal communication of Nixon in the monograph of Stephens and Smith [4] and one in a report of a Japanese study group of anorectal anomalies [3]. In the Japanese report this was called a recto-penile fistula, and there was a picture of a radiograph of the fistulous tract running parallel to the urethra. Currarino [2] described two patients with imperforate anus associated with a recto-bulbar-cutaneous fistula and quoted a similar case of Asano et al. [1] where the rectocutaneous fistula was associated with a communication in the midportion with the bulbar urethra.

Recently, Shanbhogue et al. [5] reported three male newborns with recto-perineal fistulae, but did not give an exact description of the anatomy. They suggested these were genuine perineal fistulae with a high rectal pouch.

Our four cases demonstrate that anal anomalies in boys with a perineal fistula deserve more attention and evaluation. When there is a true transscrotal fistula, the anomaly is better treated as a high or intermediate anal atresia in order not to destroy essential structures by intensive exploration. This policy may guarantee better functional results.

In case of doubt, it is wiser to do a colostomy and perform contrast studies later on to identify the actual anatomy. This is especially important since the functional results of PSARP in intermediate anomalies are as a rule quite acceptable and these children can be saved a life of misery. The fistulous tract can be excised, but we unroofed the fistula as far as seemed warranted and did a mucosectomy in the remainder of the tract. These residual fistulous tracts obliterated spontaneously.

The intermediate type of anal atresia with a transscrotal fistula should be incorporated into the international classification of the Melbourne group.

References