Anorectal Anomalies

Hazratullah Khattak,* M.B.,B.S., F.R.C.S.;
and
Fazal Rehman,** M.B.,B.S., F.R.C.S.,
Postgraduate Medical Institute,
Lady Reading Hospital,
Peshawar, Pakistan.

Key Words

Anorectal malformation, Low and High type, Imperforate anus, Posterior sagittal rectoanoplasty, "V,Y" anoplasty, Pull-through operation.

Summary

Experience of 182 children and their management at various stages of treatment for one year period, i.e. from June 1990 to May 1991, is discussed. The sex ratio was 32% and 68% for males and females respectively. Out of 95 new cases presented in this period, 65 were of "High type" and 30 of "Low type". Low type of anomalies were treated with "V,Y" anoplasty. High type were managed by three-stage operation. Colostomy being the first stage operation was performed on the day of presentation. Forty-nine cases of Pull-through operations were performed during the same period, with 31 male and 18 female babies. PSARP was the operation of choice. Thirty-eight closure of colostomies were also carried out.

Introduction

Imperforate anus is an anomaly which affects one in 5,000 children. Various classifications are present for these anomalies but we have classified

* Senior Registrar;
** Assiatant Professor,
Department of Paediatric Surgery, Postgraduate Medical Institue, Lady Reading Hospital, Peshawar.

them into two main types. In the 'High type' the rectum ends at or above the level of pelvic floor muscles, whereas in the 'Low type' it is below these muscles. Fistula is commonly present in the 'High type' with vagina in females and urethra in males.

Material and Methods

Between June 1990 and May 1991, ninety-five new cases of anorectal anomalies, 49 Pull-through operations and 38 closure of colostomies were managed in Paediatric Surgery Unit, PGMI, Lady Reading Hospital, Peshawar.

Of the new anomalies sex ratio was; male - 37 and female - 58. 45% of the babies were from Afghan population. Presentation age varied between one day to 12 years. Mainly these anomalies were divided into two categories; (i) 'High type' and (ii) 'Low type' with a ratio of 30:65 for male and female babies respectively. Low type were sub-classified as:

Covered anus	6
Bucket handle type anus with fistula	5
Bucket handle type anus without fistula	4
Anocutaneous fistula	12
Anovestibular fistula	3

'Low type' were treated with Hegar dilatation and then "V,Y" anoplasty.

'High type' included male - 23 and female - 42. Diagnosis of this type was through clinical evaluation of the fistula, its direction and invertogram X-rays.

Sigmoid colostomy was done on the day of presentation in male babies and those female babies with the problems; otherwise in female babies colostomy was performed at 3-4 months age.

Posterior sagittal rectoanoplasty was done at age one year, as Pull-through operation. Distal loopogram was done before this operation to notify the exact level of rectum and also to know if there was recto-urethral fistula.

In 47 cases rectum was mobilized from behind alone, while in two cases abdominal mobilization was needed through laparotomy. Recto-urethral fistula was noticed in 7 out of 18 male babies in this group.

Closure of colostomies as the third stage operation was done 2-3 months after the second stage operation.

Results

A total of 6 deaths occurred in the 182 ailing children. Two newborns died before colostomy could be carried out, and two died immediately after colostomy was performed. One child died post- Pull-through operation and one after closure of the colostomy. In almost all of them, the cause of death was aspiration of vomitus. There was transection of urethra in one child in Pull-through operation who developed stricture but settled with repeated dilatations. While dissecting fistulae, two had tears in the urethra which were sutured at the time but did not develop strictures. Three children went into retention and needed catheterization for 1-2 weeks, longer than usual. Anal stenosis developed in 4 cases which improved with Hegar's dilatation.

It is early to say about the continence status.

Discussion

There are various methods of Pull-through operation like abdomino-perineal, abdomino-sacral and perineal approaches, but PSARP gives good results in term of function and also less time consuming. One-stage operations are done these days in neonatal age at some centres with good results of continence but this will not be possible in our centre because of anaesthesia and other problems. We received 15 neonates in whom anoplasty had been attempted but already had 'High type' anomalies. Such interference can easily give incontinence by damaging the sphincters.

Complications under the circumstances are minimum but we will really be satisfied if we have similar results regarding their continence status.

References

1. Kelly, J.H. Cine radiography in anorectal malformations. J. Pediatr. Surg. 1969 4:538-446.

2. Nixon, H.H., Purie, P. The result of treatment of anorectal amomalies - thirteen to twenty years follow-up, J. Pediatr. Surg. 1977, 12:27.

3. Nixon, H.H. Congenital deformities of the ano-rectal region. Goligher J.C. ed. Surgery of the anus, rectum and colon. London: Bailliere Tindall and Cassel 1981: 259-78.

4. Pena, A. Posterior sagittal anorectoplasty as a secondary operation for the treatment of fecal incontinence. J. Pediatr. Surg. 1983, 18: 762-73.

5. Pena, A., deVries, P.A. Posterior sagittal anorecto-plasty: Important technical considerations and new applications. J. Pediatr. Surg. 1982, 17:796-811.

6. Percy, F.P. Anatomy and innervation of the pelvic floor. Ann. R. Coll. Surg. Engl. Sir Alan Parks Memorial Symposium. 1983: 15- 16.