FAECAL INCONTINENCE IN CHILDREN IN CALABAR

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SUMMARY

Objective: To determine the prevalence of faecal incontinence in children in Calabar.

Methods: A study of children who were admitted for faecal incontinence at the University of Calabar Teaching Hospital and the Faith Foundation Specialist Clinic in Calabar over a seven year period from January 1994 to December 200 was done.

Results: Faecal incontinence in children was common as a result of previous anorectal surgery. The modal age at presentation was the 6 to 10 years age group; this corresponds with the time when the societal embarrassment of soilage at school became obvious. The expensive surgical operation for this condition was avoided as the patients were rather offered the simple conservative management consisting of diet manipulations, daily enema and training of sphincter muscles. To these was added a simple but effective surgical narrowing of the anorectal junction. This procedure complemented with psychotherapy was effective in improving continence to various degrees in 90% of the patients.

Conclusion: Faecal Incontinence is a societal problem and before school age is not taken seriously as diapers may be applied in the home environment

Key Words: *Faecal Incontinence, children, Calabar*

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INTRODUCTION

Functional disturbances notably faecal soiling is a known complication of anorectal surgery1. The societal embarrassment associated with soilage has necessitates the search for methods to improve continence. Various methods have been developed but none to the author's knowledge have fulfilled all criteria required to maintain continence 2, 3. Microsurgical operations with interposition of skeletal muscle and artificial anal sphincter implantation are some of the measures aimed at achieving continence.

Irrespective of their effectiveness or otherwise, the associated high cost of these procedures limits the number of patients who can benefit from these devices, particularly in developing countries most of which are not able to afford the necessary instruments for these procedures. The search for simpler but effective methods of improving continence in this group of patients in our environment therefore continues and necessitated this study.

PATIENTS AND METHODS

This is a study of children who were managed for faecal incontinence during the period January 1994 to December 2000 at the University of Calabar Teaching Hospital and the Faith Foundation Specialist Clinic Calabar. For admission into the study, the children must fulfil the following 3 criteria: -

1. Age must be between 0 and 16 years
2. History of faecal incontinence as demonstrated by soilage and related causative factors.
3. History of failed conservative and training methods.

Physical examination focused on the nutritional status of the patients and the tone of the anal sphincter using the anal squeeze test. Relevant laboratory investigations included full blood count and stool microscopy for possible parasitosis.

RESULTS

During the period of the study, 51children were treated for faecal incontinence. They comprised 27 boys (52.9%) and 24 girls (47.1%). Children in the 6 to 10 year age group constituted the modal group, making up 49%. No child presented before the age of 1 year (table 1).

Table 1: Age and Sex Distribution of 51 children with faecal incontinence

Sex/Age (Years)	Under 1	1 - 5	6 - 10	11 - 15	Total
Male	-	5(18.5)	13 (48.2)	9 (33.3)	27
Female	-	4 (16.7)	12 (50)	8 (33.3)	24
Total	-	9 (17.7)	25 (49)	17 (33.3)	51

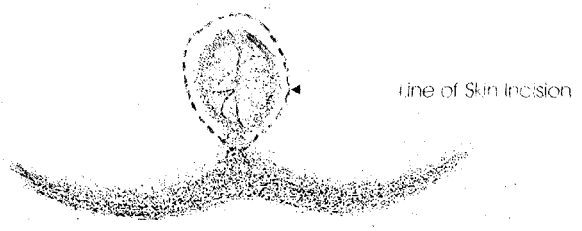
All the patients seen in this survey had some treatment previously: 36 patients (70.6%) had conservative management with diet manipulation; 15 patients (29.4%) had Thiersch's stitch insertion using chromic absorbable sutures. The aetiological factors causing faecal incontinence in this survey is presented in table 2.

Table 2: Aetiological Factors of Faecal incontinence in 51 children

Aetiological Factor	No of Patients	%
Post operative complication of surgery for anal agenesis	25	49
Post operative complication of surgery for aganglionic megacolon	13	25.5
Rectal Prolapse	9	15.7
Spina Bifida	5	9.8
Total	51	100

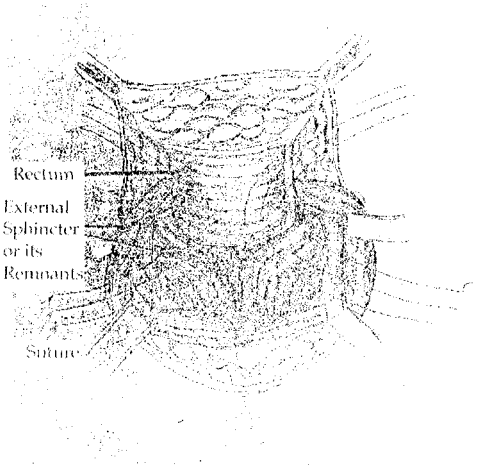
The results of our operation indicate that 46 of the patients (96.1%) had improved sensation to rectal contents as the patients were able to signify the urge to defecate. However, this ability was most noticeable in the older children who were able to express themselves. Various degrees of continence however developed as 27 patients (52.9%) were fully continent; 19 patients (37.3%) had partial continence while in 5 patients (9.8%)

who though had rectal sensation still had some degree of soilage: these were cases of spina bifida.



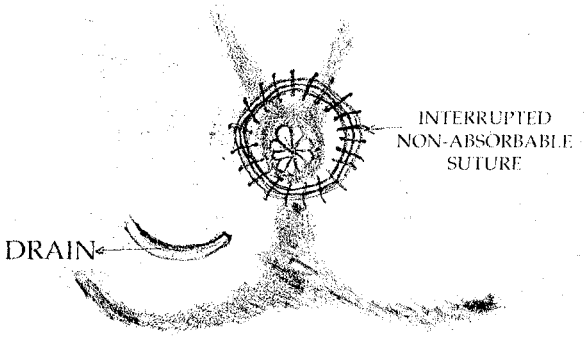
Stage 1

The method of repair we used comprised a circumferential incision around the anal margin (figure 1). The dissection was carried cephalad until about 4 to 5 cm of the rectal serosa is exposed. Interrupted absorbable sutures are then applied in such a manner that any remnant of the external sphincter muscle is brought in apposition to the rectal mucosa all around (figure 2). At the end of the exercise the same finger used in the anal squeeze test is inserted into the anal canal and the grip is adjudged satisfactory when the index finger just slips through the opening. The incision is thereafter closed using non-absorbable sutures (figure 3) to allow for sitz-bathing. The non-absorbable sutures are removed when the wound heals.



Stage 2

All patients were followed up for at least 6 to 12 months in order to ascertain the degree of improvements of incontinence. During this follow-up period constipation was seen in 11 children (21.5%) and proctitis in 15 patients (29.4%). No mortality was recorded among the patients.



Stage 3. Final Skin Closure

The result of our operation indicate that 46 patients (90.2%) had, at least, improved sensation to rectal contents as the patients were able to signify the urge to defecate. However, this ability was most noticeable in the older children who were able to express themselves. Various degrees of continence was achieved by these patients; 27 patients (52.9%) were fully continent; 19 patents (37.2%) had partial continence while 5 patients (9.8%) had some degree of soilage although they had some degree of rectal sensation This last group were patients whose primary diagnoses were spina bifida.

DISCUSSION

Faecal incontinence with soilage is an embarrassing societal problem and operative procedures are essentially aimed at improving continence and quality of life by making the individual socially acceptable[4].

In this study the age of presentation is mostly the 6 to 10 years. This is at variance with that in Europe where the age at presentation is usually in the first three years of life[5, 6]. The older age of our patients at presentation may be because of the societal embarrassment

associated with faecal incontinence. The parents are compelled to seek medical assistance because these children are now starting school and being away from home may create embarrassing scenes at school. The low direct mortality associated with faecal incontinence may also explain the late presentation in our environment, the parents waiting until the patient leaves the home environment before seeking medical assistance.

This late presentation was beneficial to us as the children were, at this age, able to understand and obey simple instructions. The resulting improvement in continence may also be due to the full cooperation of the child consequent on their being aged 6 years and above and being aware of the societal stigmatization.

In addition at 6 years and above the pelvic floor and anal sphincter muscles are better developed and may therefore have improved continence. This factor may further explain the difference between our results and those of other workers[7] whose patients were aged 1 to 3 years. It is therefore probably better to delay treatment until the child is at least 6 years and can fully cooperate for best results.

The aetiological factors of faecal incontinence are well known[8] but because of improved public enlightenment campaigns children with congenital anorectal anomalies are no longer abandoned but cared for by governments and non-governmental agencies. These results in higher incidences recorded in hospitals and care centres; and earlier presentation as the financial burden of caring for these children are taken off the families.

The patients are rarely fully continent after any type of surgery and may require the treatment of residual symtoms[4]. Thiersch's stitch insertion, though recommended by some authors[9] as a stop gap measure was not found to be useful in this study.

Procedures in which the anal verge is narrowed leaves the rectum "loaded" with faecal matter, resulting in distension of the anal canal and overflow of the contents. In contrast, in the procedure adopted in our study the narrowing is at the junction of the anal canal and rectum, leaving a considerable length of the lower alimentary canal for control. The implication of this is that the patients were able to "identify" when the rectum was distended and needed to be emptied, hence the urge to defecate. When complemented with psychotherapy, this procedure improved continence in up to 90% of our patients. This procedure also avoided the debilitating experience of having a colostomy with its attendant social stigmatization.

Patients who had underlying spina bifida had no improvement in continence. This is because of the more severe neurological and muscular deficits associated with this condition[10].

CONCLUSION

Faecal incontinence is a societal problem and in children is frequently due to previous anorectal surgery. Parents are compelled to seek medical assistance when the child attains school age and is leaving home for school. Our procedure is successful in a good percentage of the patients. We recommend that this procedure be done after that child has attained the age of 6 years and is able to understand and obey simple instructions.

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