

The Nonoperative Management of Fistula-in-Ano

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Background/Purpose: Fistulotomy is the accepted treatment for infants with perianal fistula. Although recurrence rates range from 0% to 68%. Based on the experience of a senior colleague who noted that babies suffering from perianal fistula follow a self-limited course the authors decided to determine if this observation was accurate.

Methods: A conservative approach to perianal abscess and fistula was used prospectively in 18 male infants. Abscesses were to be drained only if the baby was very uncomfortable or febrile. Once a fistula developed the authors continued observation until the fistula healed. Data are expressed as mean $\pm$ SD. Mean follow-up period was 37 months.

Results: Mean age at onset of symptoms was 4 ± 3 months. Fistulas developed in 14 patients (77%). All fistulas healed without operation. Four patients had abscesses drained for

discomfort ($n = 3$) or fever ($n = 1$). No patient required antibiotics. Mean duration of symptoms was 6 ± 4 months. Four patients in whom fistulas did not form healed after incision ($n = 3$) or spontaneous drainage ($n = 1$). All patients currently are asymptomatic.

Conclusions: In healthy neonates, perianal abscess and fistula are self-limited conditions rarely requiring surgical drainage and not requiring antibiotics. The conservative management of perianal abscess and fistula in healthy infants appears to be safe and effective.

J Pediatr Surg 35:938-939. Copyright © 2000 by W.B. Saunders Company.

INDEX WORDS: Perianal abscess, fistula-in-ano, fistulotomy.

PERIANAL ABSCESS is a relatively common condition in infants. Up to 85% of children with perianal abscess may progress to form a fistula.¹ Fistulotomy is the accepted method of treatment once the fistula is established. The use of fistulotomy for treatment of these infants was originally based on experience in the adult population.² Unfortunately, fistulotomy can result in recurrence rates ranging from 0% to 68%.^{2,3} Based on the experience of a senior colleague from another institution who noted that babies suffering from perianal fistula follow a benign self-limited course without requiring an operation (Warden J, personal communication), we decided to determine prospectively if this observation was accurate.

MATERIALS AND METHODS

A prospective conservative approach to perianal abscess and fistula was undertaken in 18 infants presenting between 1990 and 1999. Abscesses were incised and drained and antibiotics administered only if

the baby was very uncomfortable or had septic manifestations. Once a fistula was established we continued expectant management with follow-up at 3-month intervals until the fistula disappeared. We explained to parents that fistulotomy could be performed at any time if the fistula provoked pain or any kind of distress. Factors reviewed included age at onset of abscess, incidence of fistula, duration of symptoms, and requirement of surgical intervention. Data are expressed as means $\pm$ SD. Average follow-up period was 37 months (range, 2 to 99 months).

RESULTS

All patients in this series were boys. The mean age at onset of symptoms was 4.2 ± 2.8 months (range, 0.3 to 9.7 months). Four patients had abscesses incised and drained under local anesthesia for discomfort ($n = 3$) or fever ($n = 1$). The remaining 14 patients' abscesses drained spontaneously. Two patients received courses of oral antibiotics before our surgical evaluation after which no patient received antibiotic therapy.

Fistulas developed in 14 patients (77%). All patients had complete healing without operation. Mean age at resolution of fistula was 10 ± 3.5 months (range, 5.4 to 18 months). Mean duration of symptoms from initial onset to complete resolution was 6 ± 4 months (range, 0.3 to 12 months).

Four patients who did not form fistulas all healed shortly after simple incision ($n = 3$) or spontaneous drainage ($n = 1$). All patients have remained symptom free with no recurrences.

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Presented at the 1999 Annual Meeting of the Section on Surgery of the American Academy of Pediatrics, Washington, DC, October 8-10, 1999.

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0022-3468/00/3506-0023\$03.00/0

doi:10.1053/js.2000.6931

DISCUSSION

Perianal abscesses and fistulas in neonates are different conditions than those found in older children. The male preponderance of these conditions as seen in the current series, has been well described.⁴ Older children presenting with perianal abscesses or fistulas tend to have a higher incidence of underlying conditions such as inflammatory bowel disease or leukemia.^{5,6} Fistula-in-ano in an otherwise healthy neonate is suspected to originate as anal cryptitis, which progresses to form a perianal abscess.⁷ It has been postulated that androgen excess or androgen-estrogen imbalance may cause the formation of abnormal crypts of Morgagni with a predisposition to cryptitis and abscess formation.⁸ Although the etiology of abnormal crypt formation remains unknown, it has been shown that the crypts of infants with fistulas tend to be deeper (3 to 10 mm) than crypts seen in normal infants (1 to 2 mm).⁷

Several series have shown good results for treatment of fistula-in-ano with early fistulotomy or fistulectomy.^{1,9} This current series of patients, although limited in number,

does suggest that these procedures may be unnecessary. Although the risks of general anesthesia in this patient group are limited, and major complications from these procedures virtually are unseen, the risks and complications from nonoperative management appear to be nonexistent. The avoidance of the expense of general anesthesia and surgical intervention is clearly an advantage of the nonoperative approach.

The presence of the fistula with intermittent drainage for several months did not provoke pain or fever. All parents expressed satisfaction with the conservative treatment.

Antibiotic use also appears to be of limited utility.³ In the current series of patients, only 2 received oral antibiotics before being referred to our institution for surgical evaluation. The one patient in the series who presented with fever and abscess, improved promptly after incision and drainage. Although antibiotics may serve an important adjuvant role for immunocompromised patients with perianal abscesses, their use in healthy neonates may be avoided with no negative sequela.

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