

Series Editor: Camilla K. Janniger, MD, Newark, New Jersey

Two Familial Cases of Perianal Streptococcal Dermatitis

F. Lunghi, MD, Frosinone, Italy

M. Finzi, MD, Frosinone, Italy

C. Frati, MD, Frosinone, Italy

Two cases of perianal streptococcal dermatitis (PSD) occurred in a brother and sister, aged 4 and 6 years, respectively. The diagnosis was confirmed by the detection of group A β -hemolytic streptococci in the perineal area and pharynx of both patients. We emphasize the importance of a quick and accurate diagnosis of the infection because PSD is frequently confused with other perianal diseases of infancy.

Perianal streptococcal dermatitis (PSD) was first described in 1966 by Amren et al¹ as streptococcal perianal cellulitis. PSD is characterized by erythema with clearly defined borders on the perianal area. Sometimes, anal fissures, mucous-purulent secretion, and function disorders also are present. Often, the infection is caused by group A β -hemolytic streptococci.² Cases of perianal infection caused by group A β -hemolytic streptococci³ and *Staphylococcus aureus*⁴ have been published.

Case Report

A brother and sister, aged 4 and 6 years, respectively, presented with severe erythema in the perianal area. Both siblings had been treated with local and oral antifungal drugs for 4 months, without result. Skin examination showed some bright red erythematous lesions in the perianal area with clearly defined borders that were covered by a mucous-purulent secretion (Figure). The girl also had genital area involvement.

Both children had burning and intense pain during defecation, with reactive constipation. We applied a pharyngeal and perianal swab to the affected areas and discovered the presence of group A β -hemolytic streptococci.



Perianal streptococcal dermatitis in a 4-year-old boy shows bright red erythematous lesions with clearly defined borders.

We started antibiotic therapy with intramuscular administration of G penicillin (for the boy, 1 injection of 600,000 IU every 7 days; for the girl, 1 injection of 1,200,000 IU every 7 days). A local treatment using mupirocin 2% cream also was administered. Complete resolution occurred within 4 weeks, resulting in negative cultures. A 3-month follow-up examination showed no relapse.

Comment

Infections caused by group A β -hemolytic streptococci occur frequently and include impetigo, ecthyma, erysipelas, and scarlet fever. The same bacterium also can be responsible for other more

Drs. Lunghi, Finzi, and Frati are from the Department of Dermatology, Frosinone Hospital, Italy.
Reprints: F. Lunghi, MD, Via Piave 10, 03100 Frosinone, Italy.

serious diseases, such as toxic shock syndrome and necrotizing fasciitis.^{5,6}

There are many factors that could influence the development of the PSD infection. Some are related to streptococcal factors, others to human resistance. Factors responsible for human resistance include: resident flora of the skin and the presence of long-chain fatty acids, which inhibits the growth of infective organisms; trauma and abrasion of the skin, which removes the stratum corneum and allows infection to more easily occur; excessive use of detergents; and poor hygiene.⁷

Some studies illustrate the important role played by a contemporary streptococcal infection in the development of PSD.^{8,9} The bacterium pass the gastric obstacle (possibly because of an acid resistance of *Streptococcus*) and settle in the perianal area, causing the development of PSD.⁸

PSD is a superficial infection of the perianal area that can involve the external genital area.⁹ It mainly affects children and is very rare in adults.^{10,11} Clinical examination shows a severe, bright red, perianal erythema, with clearly defined borders, covered by a mucous-purulent secretion.^{9,12} Common associated symptoms are pain during defecation and itching.

It is very difficult to diagnose PSD in its early phase; in fact, it is often confused with fungal infection, seborrheic eczema, or intestinal parasitism and is treated accordingly. The misdiagnosis permits the development of the disease, which involves the deeper folds of the skin. Two studies demonstrate the benefit of using a pharyngeal swab.^{10,11}

Treatment of PSD is based on both local and general therapy. The choice of antibiotics is based on laboratory results and often consists of G penicillin or erythromycin. Treatment must be administered for at least 2 weeks to avoid relapse. Studies have underlined the efficacy of local treatment with mupirocin 2%¹³ or erythromycin cream only.¹⁴

We believe that PSD is an underdiagnosed disease, and a simple swab and culture examination

could be sufficient for a correct diagnosis and a quick recovery.

REFERENCES

1. Amren DP, Anderson AS, Wannamaker LW. Perianal cellulitis associated with group A streptococci. *Am J Dis Child.* 1966;112:546-552.
2. Krol AL. Perianal streptococcal dermatitis. *Pediatr Dermatol.* 1990;7:97-100.
3. Teillac-Hamel D, De Prost Y. Perianal streptococcal dermatitis in children. *Eur J Dermatol.* 1992;2:71-74.
4. Montemarano AD, William DJ. *Staphylococcus aureus* as a cause of perianal dermatitis. *Pediatr Dermatol.* 1993;10:259-262.
5. Parish LC, Witkowski JA, Vassileva S. Testo atlante delle infezioni cutanee. *Pharma Project Group Ed Scient.* 1997;35-36.
6. Barnett BO, Frieden IJ. Malattie cutanee da streptococco nei bambini. *Semin Dermatol.* 1993;2:61-69.
7. Tunnessen W. Practical aspects of bacterial skin infections in children. *Pediatr Dermatol.* 1985;2:255-265.
8. Paradisi M, Cianchini G, Angelo C, et al. Due casi familiari di dermatite streptococcica perianale. *Minerva Pediatr.* 1994;46:303-306.
9. Patrizi A, Di Lemia V, Neri I. Dermatite perianale streptococcica dell'infanzia: due nuovi casi. *Giorn Intern Derm Ped.* 1994;5:169-171.
10. Neri I, Bardazzi F, Marzaduri S, et al. Perianal streptococcal dermatitis in adults. *Br J Dermatol.* 1996;135:796-798.
11. Neri I, Bardazzi F, Marzaduri S, et al. Dermatite perianale streptococcica: tre casi familiari. *Derm Clin.* 1996;16:35-37.
12. Paradisi M, Cianchini G, Angelo C, et al. Perianal streptococcal dermatitis: two familial cases. *Cutis.* 1994;54:341-342.
13. Medina S, Gomez MI, De Misa RE, et al. Perianal streptococcal cellulitis: treatment with topical mupirocin. *Dermatology.* 1992;185:219.
14. Paradisi M, Cianchini G, Angelo C, et al. Efficacy of topical erythromycin in treatment of perianal streptococcal dermatitis. *Pediatr Dermatol.* 1993;10:297-298.