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## BRIEF COMMUNICATION

### Cervical intertrigo: Think beyond fungi



### Intertrigo cervical: más allá de los hongos

#### Introduction

Group A *Streptococcus* (GAS) has a widely known role in several skin infections such as cellulitis, impetigo or erysipelas, but its involvement in intertrigo is clearly underrecognized and scarcely reported.<sup>1</sup>

Intertriginous cervical dermatitis, caused by the friction of two appositional skin surfaces is a common entity in newborns and infants due to the predisposition of particular anatomic features, e.g. deep skin folds, drooling, limited neck space, chubbiness. Other typical sites of intertrigo in children are the inguinal, axillary and thigh areas.

Secondary infection frequently occurs, especially caused by common skin commensals (*Candida albicans* and other fungi) but other more worrisome pathogens such as *Staphylococcus aureus* or GAS must also be taken into consideration.<sup>2,3</sup>

The differential diagnosis includes seborrheic and atopic dermatitis. These disorders are also triggers for intertrigo superinfections, which in turn can vastly exacerbate the previous skin condition.<sup>4</sup> Less frequent causes of intertrigo are erythrasma, inverse psoriasis, scabies and histiocytosis.

We describe a case of cervical streptococcal intertrigo to remind of this entity and with the aim of avoiding delays in diagnosis that can lead to worsening of symptoms and even systemic complications such as secondary bacteremia.<sup>5</sup>

#### Case report

A 2-month-old male presented to the emergency department with a 4-day history of progressive intertriginous erythema. The child was otherwise healthy and afebrile, and his personal history was unremarkable, except for right plagiocephaly.

Physical examination revealed a fiery-red, well-demarcated, mild foul smelling weeping patch in the neck fold, more evident on the right side (Fig. 1). There were no satellite lesions clearly visible and no other lesions were

found in any other location. A bacterial superinfection was suspected and a swab sample was obtained to perform a rapid antigen detection test for GAS, with a positive result. Skin swab microbiological cultures later yielded an intense growth of GAS, and *S. aureus* was also detected, but no fungi were isolated. The patient was diagnosed with streptococcal intertrigo and a 10-day antibiotic course with amoxicillin plus clavulanic acid was prescribed. Topical treatment with mupirocin and zinc sulphate solution was also indicated. The patient was evaluated 24 h later with improvement of the lesions, with complete resolution of the condition within a week.



Figure 1 Well demarcated, fiery-red neck crease patch typical of *Streptococcus pyogenes* intertrigo.

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## Discussion

Even though streptococcal intertrigo has distinctive clinical features, this entity is often misdiagnosed and still underreported. In our review of the literature, we found 7 cases of this particular condition. Six of them were in infants under 6 months of age (3–5 months), whilst the remaining corresponded to a 2-year-old female,<sup>6</sup> constituting our patient the youngest of the series. All but one of the cases involved the neck crease<sup>1,4–7</sup> and one patient developed secondary bacteremia requiring hospitalization and intravenous antibiotic treatment.<sup>5</sup>

GAS etiology may be suspected when a beefy-red, sharply-demarcated, smooth, satellite-free, typically unilateral lesion is found, with foul smell associated. A poor clinical response to topical antifungal and steroid treatment should also indicate toward the presence of this pathogen.<sup>4</sup>

Diagnostic suspicion is corroborated by a positive rapid streptococcal antigen test, and final diagnosis is given by skin swab culture.

Treatment is based on a 7–10-day antibiotic course with oral amoxicillin±clavulanic acid (*penicillin and first-generation cephalosporins are other options*) and topical antibiotics. Antifungal or low potency steroid creams could be added, especially in patients with a personal history of atopic dermatitis.<sup>1,4–7</sup>

## Conclusions

Intertriginous cervical dermatitis is a common disorder in newborns and infants. Secondary infection is frequent, typically caused by common skin commensals (*C. albicans*). GAS must be considered as one of the causative agents of intertrigo, distinctive clinical features characterize this condition. Clinical recognition of this entity is crucial for an early diagnosis, avoiding worsening of the lesions and systemic complications resulting from inappropriate treatment.

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## Conflicts of interest

The authors have no conflicts of interest to declare.

## References

- Honig P, Frieden I, Kim H, et al. Streptococcal intertrigo: an underrecognized condition in children. *Pediatrics*. 2003;112:1427–9.
- Janniger CK, Schwartz RA, Szepietowski JC, et al. Intertrigo and common secondary skin infection. *Am Fam Phys*. 2005;72:833–8.
- Kalra MG, Higgins KE, Kinney BS. Intertrigo and secondary skin infections. *Am Fam Phys*. 2014;89:569–73.
- Silverman R, Schwartz R. Streptococcal intertrigo of the cervical folds in a five-month-old infant. *Pediatr Infect Dis J*. 2012;31:872–3.
- López-Corominas V, Yagüe F, Knöpfel N, et al. *Streptococcus pyogenes* cervical intertrigo with secondary bacteremia. *Pediatr Dermatol*. 2014;31:e71–2.
- Neri I, Bassi A, Patrizi A. Streptococcal intertrigo. *J Pediatr*. 2015;166:1318.
- Neri I, Savoia F, Giacomini F, et al. Streptococcal intertrigo. *Pediatr Dermatol*. 2007;24:577–8.

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