

(CASE REPORT)



Neonatal cervical group B streptococcal cellulitis

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Abstract

Cellulitis of neonates and infants younger than three months of age is rare and often atypical in presentation. Because of the potentially (and rapidly) lethal course of group B streptococcal sepsis, it is essential to avoid delay in diagnosis and treatment. We report the case of a neonate with group B streptococcal retroauricular cellulitis. Admitted for late bacterial neonatal infection with cutaneous location. The history of the disease dates back to one day before admission, with the appearance of a painful cervical swelling without other associated signs evolving in a context of fever of 39°.

The clinical examination found a pink tonic reactive newborn in good hemodynamic and respiratory condition, febrile at 39.5°. With the presence of a painful and warm latero-cervical mass of hard consistency and the presence of associated bilateral latero-cervical adenopathies was noted. The oral cavity examination was unremarkable;

Cellulitis in newborns and infants under 3 months of age is rare and has not been described in the literature except in a few clinical cases. In the case of any cellulitis of the face in a newborn or before the age of 3 months, late infection with group B streptococci (GBS) should be considered.

Keywords: Cellulitis; group B; Streptococcal; Neonatal; Dermo-hypodermatitis

1. Introduction

Cellulitis in neonates and infants under three months of age is rare and often atypical in presentation. Because of the potentially (and rapidly) lethal course of group B streptococcal sepsis, it is essential to avoid delay in diagnosis and treatment [1]. Thus, in the presence of any suspected skin infection in children under three months of age, it is recommended to think of type B streptococcus first [2]. Cellulitis is mainly localized in the submandibular and preauricular region of the head [3].

We report the case of a 22-day-old boy hospitalized with right cervico-occipital cellulitis.

2. Case presentation

We report the case of a male newborn; at term; eutrophic; at 22 days of life; the delivery was by vaginal route; Apgar not specified with notion of immediate crying; the birth weight was 2865g, of a 37 years old mother; G3P3; having presented an endometritis with a thrombosis of the ovarian vein; the infectious anamnesis was positive

Admitted for late neonatal bacterial infection with cutaneous localization. The history of the disease dates back to one day before admission, with the appearance of a painful cervical swelling without other associated signs evolving in a context of fever of 39°.

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The clinical examination found a pink tonic reactive newborn in good hemodynamic and respiratory condition, febrile at 39.5°. With the presence of a painful and warm latero-cervical mass of hard consistency and the presence of associated bilateral latero-cervical adenopathies was noted. The oral cavity examination was unremarkable;

A biological assessment was requested showing a positive procalcitonin at 13.74 ng/l with a concomitant CRP at 254 mg/l, the lumbar puncture was negative, ECBU and blood culture negative. A cervical ultrasound scan showed a right occipital and posterior cervical dermo-hypodermatitis.

Complementary imaging by a cervical CT scan was in favor of a cervical and occipital cellulitis. The search for streptococcal B antigens in the urine was positive. The treatment was based on antibiotic therapy with a good clinical and biological evolution.

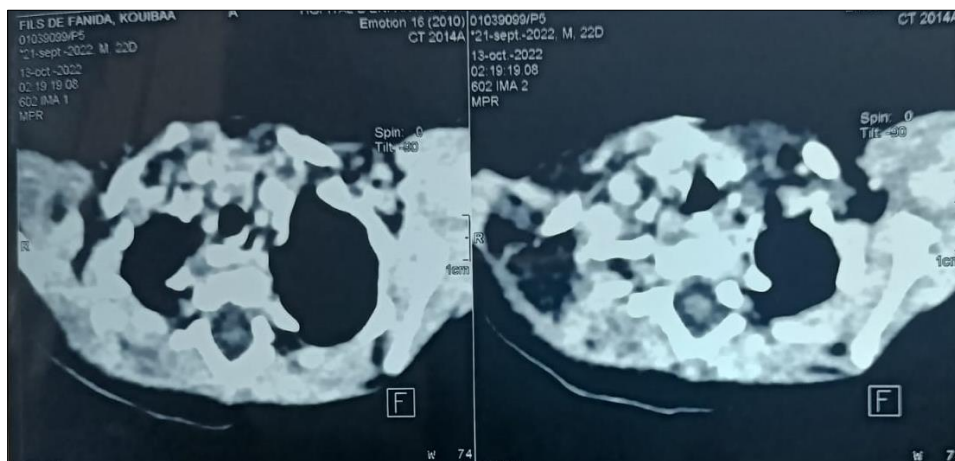


Figure 1 Cervical CT scan showing right cervico-occipital cellulitis

3. Discussion

Streptococcal type B dermo-hypodermatitis in infants under 3 months of age was first described in the 1980s [2, 3] under the term "cellulitis-adenitis syndrome".

It is recommended that cellulitis in infants less than 3 months of age be treated with a first-line therapy for type B streptococcus, while respecting the recommendations for the treatment of maternal-fetal infections [1].

The incidence of cellulitis in maternal-fetal streptococcal type B infections is variable according to studies. It seems to be increasing (or perhaps it is better detected?) since in a Finnish study of 1999 [4] Kalliala et al. observed only 2% of cutaneous complications, against 5% in 2002 by Yossuck et al. [5] and 21% in 2008 by Prieto et al. [6]. To our knowledge, only a few cases have been reported in the literature. Generally speaking, the clinical presentation is similar to that of our case: it is always a diagnosis delayed by at least 7 days after birth [6] with a non-specific symptomatology [7]: fever, crying, irritability, decrease in food intake. Hence the need for a careful clinical examination of any febrile presentation in infants, regardless of the epidemic context. It is important to look for secondary locations of sepsis.

Prematurity and hypotrophy appear to be risk factors [1, 8, 9], both for the occurrence of cutaneous streptococcal type B infection compared to a full-term infant, and also for its severity.

It has even been described a case of transmission through breast milk in a preterm infant [10].

It is also essential to maintain prolonged intravenous antibiotic therapy (10 to 14 days) because of the risk of relapse [11], which may require 6 weeks of antibiotic therapy. This was not a case of penicillin resistance but rather a local relapse.

Note the possibility of inguinal localization [12].

Finally, even if from a bacteriological point of view, type B streptococcal cellulitis is the most frequently described, this does not rule out the possibility of other agents such as staphylococcus aureus or group A streptococcus, hence the need

for broad antibiotic therapy, to be adapted secondarily. In our case, the search for streptococcal antigens in the urine came back positive.

The evolution was favorable clinically and biologically without any relapse with a 6-month follow-up.

4. Conclusion

Practitioners should be aware of unusual forms of neonatal streptococcal type B infection.

Any cellulitis in newborns or infants less than 3 months of age should be considered a late-onset streptococcal type B infection.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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