



A Case Report of an Infant Erysipel as with Good Clinical Evolution

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Abstract

Erysipelas is a relatively common infection of the upper dermis and superficial lymphatics. It affects mainly adults, between 60 and 80 years of age, especially immunocompromised ones, but some cases were reported also in newborns and infants. Its pathogenesis mostly involves a disruption of the skin barrier allowing the infective agent, mainly group a b-hemolytic streptococcus, to enter. It most commonly involves the lower extremities or the face, presenting as a well-demarcated, tender, tense, deeply erythematous and indurated plaque. These lesions may spread more rapidly in infants than in older patients and seems to undergo rapid exacerbations at times until the administration of treatment. Herein we report an unusual pediatric case of a post traumatic leg erysipelas in a 20 months female infant with good clinical outcome.

Keywords: Erysipelas; Infant; Newborn; Skin infection

Introduction

Erysipelas is a relatively common infection of the upper dermis and superficial lymphatics [1]. It is mostly caused by Group A streptococci, infrequently involving other species of streptococci (groups B, C, or G) or Staphylococcus aureus [2]. Furthermore, it most commonly involves the lower extremities or the face [1]. This infection usually occurs on adults especially immunocompromised, but some cases were reported also in newborns and infants after bacterial inoculation through a break in the skin barrier [3]. We report an unusual pediatric case of post traumatic leg erysipelas in a 20 months female infant with good clinical outcome.

Case Presentation

A 20 months female infant, with a history of a traumatism of the lower limb causing a cutaneous break, presented 1 week later, at pediatric emergencies, with an acute onset of an erythematic and edematous lesion of the lower limb. Parents reported the appearance of a diffuse edema of the distal extremity of the lower limb with erythema and fever with thrills. Evolution was marked by the extension of the lesions taking the entire right lower limb. No other sings of systemic infections or any other complains were noted. Clinical examination showed an irritable and feverish infant, presenting with a warm erythematous and edematous infiltrating plate, sharply demarked with regular contours on the right lower limb reaching up to

the thighs, without purpura, necrosis, crepitation nor disturbances of sensibility, with the presence in surface of a linear erosion surmounted with hemorrhagic and melliceric crusts. An inguinal and homolateral lymphadenopathy was noted in the lymph node exam.

The patient was hospitalized and a biological assessment was carried out having objectified the presence of leucocytosis at 25000 with neutrophilia at 19000 and CRP at 280. A standard radiography of the lower limb was done showing no signs of bone involvement or osteomyelitis. The diagnosis of erysipelas was done and the patient was placed on injectable Amoxicillin clavulanic acid in addition to entry-door treatment and local measures. The evolution was marked by the regression of the lesions whitening 10 days with disappearance of fever and net improvement of the biological assessment.

Discussion

Erysipelas is a superficial skin infection with a peak incidence between 60 and 80 years of age [3]. This infection affects the epidermis and superficial dermis [4]. And is characterized by an acute onset of a tender, tense, deeply erythematous, indurated plaque [5]. Its pathogenesis mostly begins with a disruption of the skin barrier allowing the infective agent; mainly group A *β*-hemolytic streptococcus, to enter [4]. Though classically presenting as a well-demarcated, shiny plaque involving the face, the distribution has shifted in recent years with currently 75 to 85% of cases occurring on the legs, as seen in our patient [3]. Nevertheless, the affected area is often periumbilical in newborns with erythema spreading along the abdominal wall [4].

Later in infancy it more commonly begins from an otitis media, acute rhinopharyngitis or impetigo [6]. The intense edema may lead to the formation of tense bullae on the surface of the lesion, which later rupture and crust [5]. Furthermore, the infection shows rapid, irregular, lateral spread over few days and can further progress to more severe forms [4]. The lesion may spread more rapidly in infants than in older patients and seems to undergo rapid exacerbations at times until the administration of treatment [6]. In addition to the rash, there may be associated ulceration, blister development, purulent discharge, soft tissue oedema, abscess formation and lymphadenopathy [7]. Along with general features like fever, chills and general malaise [3]. The diagnosis is largely based on clinical findings [4]. However, laboratory blood testing may show raised white cell count with a predominant neutrophilia and a raised C-reactive protein level [7]. On the other hand, differential diagnosis can be

wide, and includes mainly insect bites, cellulitis, ecthymagangrenosum, allergic contact dermatitis and necrotizing fasciitis [4].

The specific management depends upon the location and severity of the infection and patient comorbidities [7]. Hospitalization is generally recommended for very young or immunocompromised patients for a few days [4]. Treatment is with empiric antimicrobials in most circumstances with use of penicillin or amoxicillin in most cases [7]. Additional management strategies include limb elevation, compression stockings, rupture of bullae, and debridement of any necrotic tissue [3]. Response to treatment should be assessed based on clinical features, patient observations and biochemical markers [7]. The prognosis is excellent for patients receiving suitable and timely treatment [4]. However, recurrences are relatively common and frequently occur at the same site in up to 30% of patients, especially in those with predisposing conditions [5,3]. In these cases, prophylactic antibiotics, either penicillin or erythromycin base, can be used [5]. Moreover, the mortality is highest in infancy and beyond 55 years [6].

Conclusion

Erysipelas is a common pathology in adults but rare in children and even rarer in infants, to which one must think while eliminating other emergencies mainly dominated by osteomyelitis. The prognosis may be favorable if treated in time. However, when the treatment is delayed, the complications can be dramatic.



Figure 1 : Erythematous and oedematous sharply demarcated in filtrated plate of the right lower limb with an erosion and bullas on the surface.



Figure 2: Erythematous and oedematous plate reaching up the posterior face of the right foot, with a skin erosion at the big right to.

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