

# Clinical Quiz

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## Gangrenous ecthyma in infancy

### Clinical Presentation

An 18 months old boy presented with erythematous lesions which was followed by edematous plates in a week, lesions were sited at the level of the internal face, at the right thigh and at the level of the right forearm. These lesions measuring 1 to 2 cm of diameter, have evolved to the state as shown in Figure 1. This was in a context of apyrexia and deterioration of the general state without any other associated signs. The complementary examinations showed a hyper-lymphocytosis ( $9254/\text{mm}^3$ ) and hyper-platelets ( $476000/\text{mm}^3$ ). The inflammatory syndrome was moderate (C-reactive protein= 48 mg/l).



**Figure 1**

## Questions

- 1- What does the photography show?
- 2- What's your diagnosis?
- 3- Which complementary exams are necessary to complete?
- 4- What is the advised treatment for this child?

# Clinical Quiz

## Answers

1. Black necrotic ulcer with an erythematous rim.
2. Gangrenous ecthyma
3. The study of the cerebrospinal fluid and cyto-bacteriology of the urine have to be achieved. In the view of suspecting a congenital or acquired immunity deficiency, an immunity assessment has to be started according to clinical and biological indication.
4. Large spectra penicillin's such cephalosporin of the third generation associated with aminosides like the amikacin

## Discussion

Gangrenous ecthyma was firstly described in 1897 in terms of bacterial vascularity as specific and cutaneous infections in infants.<sup>1</sup> It is classically described as a cutaneous manifestation of *Pseudomonas aeruginosa* bacteremia.<sup>2</sup> It occurs almost exclusively on precarious immunity subjects such as those with homeopathy, severe malnutrition, viroids, immunity deficiency and so forth.<sup>1,3,5</sup> The weakness of the mucocutaneous barrier membrane by maceration, irritation, inflammation and burns are favoring infection by *Pseudomonas aeruginosa* and its pullulation.<sup>3</sup> The primitive cutaneous localization is rare compared to the secondary forms with a septicemia.<sup>4</sup> Boisseau et al,<sup>5</sup> estimated that 1.3 to 13% of patients having a bacteremia with *Pseudomonas aeruginosa* would develop cutaneous lesions of gangrenous ecthyma, while Reymond et al<sup>2</sup> report that the rate is up to 76%. Gangrenous ecthyma starts with a well-circumscribed edematous lesion of vesicle size, which quickly becomes erythematous with a hemorrhagic center. Subsequently, appearing bubbles are ulcerating with necrosis from the center to periphery with extensive inflammatory halation. Certain localizations are particularly affected such as the perineum (57%), the extremities (30%) and trunk (6%). A fever is noticed in 96% of cases. In septicemias with *Pseudomonas aeruginosa*, the neuromeningeal localization is noticed in 22% of cases. No neuromeningeal affection was shown in our patient. In case of suspicion of congenital or acquired immunodeficiency, an assessment must of the immunity have to be achieved according to clinical and biological orientations.<sup>1,3,5</sup> Once, these lesions are identified, antibiotherapy has to be instituted. This would consist of large spectra penicillin's such cephalosporin of the third generation. The association of aminosides like the amikacin is mandatory. Thereafter, the treatment is adapted to the data of the antibiogram. The duration of the treatment is at least 10 days for forms without septicemia.

## References

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