



PAEDIATRIC DERMATOLOGY

NECROTIZING FASCIITIS VERSUS PYODERMA GANGRENOSUM: CAN WE SPOT THE DIFFERENCE

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Background: Acute cutaneous necrosis is characterised by a wide range of aetiologies and is associated with significant morbidity and mortality, warranting complex considerations in management. Early recognition is imperative in diagnosis and management of sudden gangrenous changes in the skin. Here we report a case of children misdiagnosed as "pyoderma gangrenosum" with "skin necrosis" as the main manifestation.

Observation: 3-year-old boy, acute course of disease, the initial onset is intermittent high fever, up to 39 °C, abdominal obvious swelling. He was diagnosed as "cellulitis" in a local hospital. but anti-infective treatment was ineffective. The child suffered from persistent high fever and further abdominal distension. he was transferred to the intensive care unit. "septic shock, cellulitis" was diagnosed and treated with fluid resuscitation, vasoactive drugs and plasma exchange. The vital signs of the children were stable, but the skin condition deteriorated with irregular skin necrosis, histopathology showed non-specific inflammatory cell infiltration. Considering pyoderma gangrenosum, prednisone acetate 1.5mg/kg/d treatment, the rash did not improve. Tissue culture etiological examination showed that *Escherichia coli* was positive, sensitive antibiotics were given according to the results of drug sensitivity, extended debridement was performed, negative pressure closed drainage was given after operation, necrosis was not progressing, and a large number of fresh granulation tissue grew 7 days after operation. The final diagnosis was necrotizing fasciitis.

Key message: Necrotizing fasciitis and pyoderma gangrenosum are easy to confuse in clinical manifestations, but there are still subtle differences. the pathogenesis and treatment of necrotizing fasciitis and pyoderma gangrenosum are very different and need to be carefully identified. Pyoderma gangrenosum belongs to the spectrum of neutrophilic dermatoses as it exhibits dermal inflammatory infiltrates composed of neutrophils. It is usually associated with a systemic inflammatory response, bacterial cultures are often negative and it does not respond to antibiotic therapy.

