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CASE REPORT Open Access

Young child with painful edema and purpura: a case report

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Abstract

Background: We reported the case of a two-old-year boy with a painful acute hemorrhagic edema. This is a self-limited benign condition: usually, affected children are well appearing and this strongly support the diagnosis. In the opposite, in our case, we observed a painful presentation of the edema. Therefore, we demonstrated that rarely, this condition could have also a painful presentation.

Conclusions: This case report helps clinician to know that also acute hemorrhagic edema could have a painful presentation, so we must considered it in the differential diagnosis with sepsis, sickle cell crisis and child abuse. We believe that these findings will be of interest to pediatricians.

Keywords: Pediatrics, Emergency medicine, Dermatology, Vasculitis, Edema, Painful edema, Purpura, Purpuric lesions, Acute hemorrhagic edema (AHE), Vasculitis

Background

Acute hemorrhagic edema (AHE) is a rare cause of edema and purpuric lesions in children in first years of life [1] ·Typically, edema involves upper and lower extremities, sparing the trunk. Purpura has a target-like appearance and involves face, ears and extremities [2]. Usually, AHE is a self-remitting condition with an exclusive cutaneous involvement, but sometimes arthralgia, arthritis and renal involvement may be present [2]. AHE shares the same pathogenetic mechanism of Henoch-Shoenlein Purpura [3]. Both conditions are IgA vasculitis, but both lesions' pattern and distribution, both age of onset are different [4]. Evidence about treatment is mainly anecdotal, with reports of oral or intravenous steroids administration [5], but there is no clear indication supporting their use.

Case presentation

A two-year-old boy presented at the emergency department for an extremely painful bilateral non-pitting edema of both hands (Fig. 1). No fever neither trauma occurred. At examination, the child was well, but he could not use his hands nor walked. Purpuric lesions on the left cheek, nostril and ear were noted (Fig. 2). In the suspicious of an infectious, we performed blood analysis, showing a normal blood cells count and elevated flogosis indexes (CRP 14.2 mg/dL and ESR 110 mm/hr). Urine analysis were negative too. We stated a symptomatic pain treatment with ibuprofen.

During observation, both the edema and the purpuric lesions spread to arms, feet and legs (Fig. 3).

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Fig. 1 Painful left hand edema

We made diagnosis of acute hemorrhagic edema. Our patient received treatment with ibuprofen. Lesions resolved in 72 h.

Discussion and conclusion

AHE represents a challenge for the pediatrician at the emergency department. Usually, in contrast to striking cutaneous lesions and rapid progression, the overall child general condition is good [6] and characteristically, AHE patients are nontoxic-appearing infants [7]. Usually, in fact, in AHE, affected children are well appearing, and this strongly supports this diagnosis.

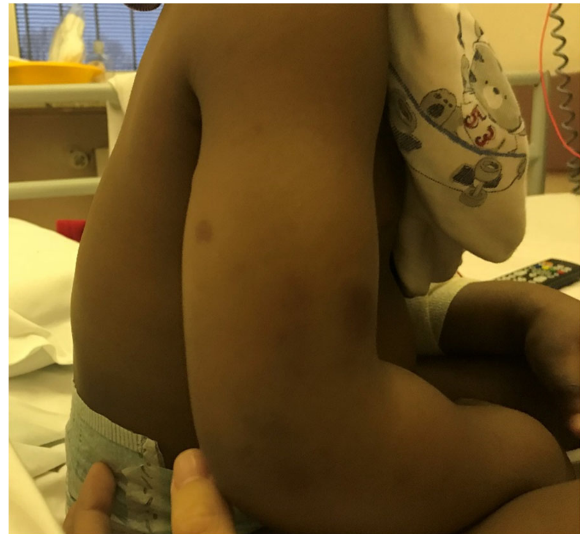

Fig. 3 Purpuric lesions and edema on right arm

In contrast, in our case, the edema was significantly painful and the child very disturbed, so much that he could not use his hands nor walked. Not recognizing the pain as a possible part of this clinical picture, may lead to a misdiagnosis of potentially serious pathologies, which need adequate treatment, such as sepsis, sickle cell crisis, autoimmune thrombocytopenia, coagulopathies or child abuse.

We believe that knowing this unexpected and unusual presentation of the disease could be of interest to pediatricians: in AHE, in contrast to the dramatic cutaneous eruption, clinical conditions are usually optimal, but sometimes they could be badly. Awareness of this may avoid possible misdiagnosis.

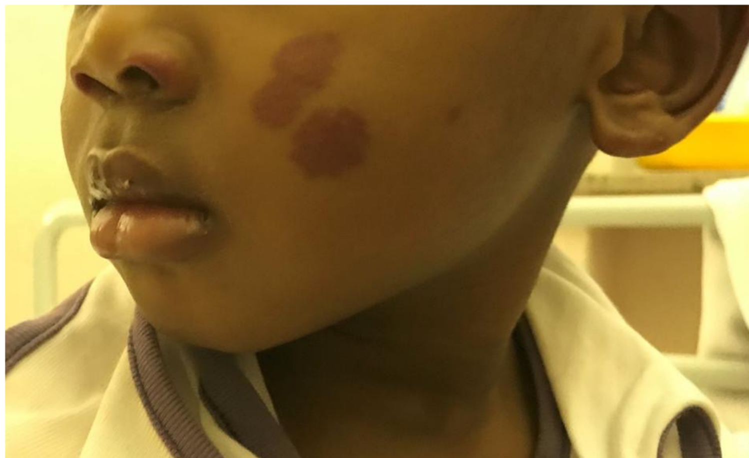

Fig. 2 Purpuric lesions on cheek, nostrils and ear

Abbreviation
AHE: Acute hemorrhagic edema

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Authors' contributions
Conception or design of the work: Contorno, Cozzi, Berti, Barbi, Taddio. Data collection: Contorno, Cozzi, Berti, Barbi, Taddio. Data analysis and interpretation: Contorno, Cozzi, Berti, Barbi, Taddio. Drafting the article: Contorno. Critical revision of the article: Contorno, Cozzi, Berti, Barbi, Taddio. Final approval of the version to be published: Contorno, Cozzi, Berti, Barbi, Taddio. This work has not been presented before.

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Consent for publication
We received informed consent from the patients' parents.

Competing interests
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