A sunlit skin

Answer

Polymorphous light eruption is the most common photodermatosis in childhood.[1] Despite this, only 10% of cases begin before age 14 years.[2] The eruption develops after hours or days of sun exposure and usually lasts for several days, subsiding without skin scarring. Typically, the eruption is symmetrical and involves sun-exposed areas, in particular the V of the neck, the upper chest, shoulders and upper arms. The association of systemic symptoms is rare. The eruption may be manifold in appearance. The papular form is the most common, but papulovesicular, plaque-like, vesiculo-bullous, urticarial, haemorrhagic and erythema multiform-like have been described. The diagnosis is mainly clinical, and tests should be limited to severe or persistent cases, with cutaneous lupus erythematosus as the main differential diagnosis.[3] The rash tends to recur in the same skin sites through the years, with a progressive tendency to improvement. Treatment consists of topical steroids, or a brief course of oral steroids, with avoidance of sunlight exposure. Preventive strategies are the use of broad-spectrum sunscreens and a gradual sun exposure in spring and early summer, starting with a few hours of exposure per day and avoiding exposure during the hottest hours.[4]

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Cullen's and Grey Turner's signs in unconscious children

Answer

Because of abdominal wall ecchymoses and abdominal distension, she underwent a bedside ultrasound demonstrating anechoic fluid between bowel loops and a computed tomography scan showing haemoperitoneum due to duodenal perforation. Blood examination showed Hb 7.2 mg/dL (11.3 mg/dL at admission, 3 days before), white cells 27×10^9/L (78% neutrophils) and C-reactive protein 42 mg/L with no alteration of pancreatic and hepatic enzymes.

Steroid therapy was stopped, metronidazole was added, and a blood transfusion was performed before surgery.

The toddler was in an induced coma, and hence, it was difficult to find other signs. Recognising the appearance of brownish peri-umbilical and lateral abdominal wall ecchymoses known as Cullen's and Grey Turner's signs promptly led to the diagnosis of duodenal perforation. The patient underwent laparoscopic surgical repair with full recovery. Peritoneal fluid culture was negative.

The aetiology of duodenal perforation remained unknown; however, we can hypothesise a perforation secondary to post-surgical stress syndrome or to steroid administration.

Cullen's and Grey Turner's signs suggest the presence of retroperitoneal blood[1] due to ectopic pregnancy,[2] severe pancreatitis[3] or any condition that causes retroperitoneal haemorrhage.[4] Blood diffuses from the retroperitoneum to surface through various muscular wall defects (e.g. along the gastro-hepatic and falciform ligament to the umbilicus or from the posterior para-renal edge of the quadratus lumborum muscle) at least in 24 h and an average of 3 days from bleeding.[5] Depending on the site of subcutaneous ecchymoses, different signs are achieved: peri-umbilical (Cullen) (Fig. 1, thin arrow), lateral edge of the quadratus lumborum muscle (Grey Turner) (Fig. 1, thick arrow), inguinal (Fox) and scrotum (Bryant). The clinicians should be aware of the Cullen's and Grey Turner's signs because these signs could allow an 'at a glance' diagnosis of a potential life-threatening condition. In the presence of peri-umbilical or abdominal wall ecchymoses, abdominal imaging is mandatory.

References

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