

## Acute infantile hemorrhagic edema mimicking hench-schonlein purpura

Veysel Kars<sup>1</sup>, Ahmet Yilmaz<sup>1</sup>, Tahsin Celepkolu<sup>1</sup>, Hamza Aslanhan<sup>1</sup>, Necmi Arslan<sup>1</sup>,  
Vasfiye Demir<sup>1</sup>

### Abstract

Acute infantile hemorrhagic edema is an acute cutaneous leucocytoclastic vasculitis that can be seen in infancy and characterized by fever, palpable purpura, and edema. Although it presents with severe symptoms, the clinical course is benign and the disease resolves in a short time. In this report, we present a 17-month-old infant who was admitted with cutaneous purpuric rash and edema of the extremities and subsequently diagnosed as acute infantile hemorrhagic edema.

**Key words:** Edema, Infant, Vasculitis

### Introduction

Acute infantile haemorrhagic edema (AIHE) is characterized by rosette-shaped purpuric lesions ranging from 1 to 5 cm in diameter, predominantly on the cheeks, ears, and extremities [1, 2]. Although the etiology remains unknown, AIHE constitutes 12% of leukocytoclastic vasculitis (LCV) cases and is mostly seen during 4 months to 2 years of age, with no gender difference, and generally follows an upper respiratory tract infection [3]. There is no specific treatment for AIHE. Steroids and antihistamines have been used without an effect on the clinical course of the disease [4, 5]. Patients with a history of infection should receive treatment. A male patient who underwent steroid treatment and recovered completely has been recently reported [1]. Treatment response to antihistamines has also been reported in the literature [4]. We report a 17-month-old male infant who presented with AIHE accompanied by acute tonsillopharyngitis without systemic involvement

### Case

A 17-month-old male infant with a one-week history of fever and a two-day history of rashes and swellings on the ears was admitted to our clinic with rashes on the ears, hands, and legs.

In the physical examination, the temperature was 37.2 °C, blood pressure was 100/60 mm/Hg, body weight was 11.3 kg (10-25 percentile), and height was 85 cm (10-25 p). Physical examination also revealed widespread ecchymotic lesions with differing diameters over the hands, dorsal aspects of the feet, and both ears. The remainder of the physical examination was normal. Laboratory parameters were as follows: leucocyte count: 11,000/mm<sup>3</sup>, thrombocyte

count: 350,000/mm<sup>3</sup>, Hb; 9.8gr/dl, erythrocyte sedimentation rate:18 mm/hr, and C-reactive protein : 18 mg/L. The coagulation test results revealed normal. The blood biochemistry, urinalysis, and serum immunoglobulins were in normal limits. The stool samples were negative for parasites and occult blood. The cerebrospinal fluid (CSF) analysis revealed normal. Viral cultures were negative, and there was no growth in blood, urine, throat, and CSF cultures. The diagnosis of LCV was confirmed by the findings of the skin biopsy. Antibiotic therapy was commenced for acute tonsillopharyngeal infection, and systemic and local steroids, and antihistamines for the skin manifestations. Over the following 10 days, the patient recovered completely.

### Discussion

AIHE is considered by some scholars as a cutaneous variant of Henoch-Schönlein purpura (HSP) [1], whereas the others regard it as a distinct entity [6]. Although the etiology of AIHE remains vague, 75% of AIHE patients present with a history of recent upper respiratory or urinary tract infection [6]. The onset of acute infantile hemorrhagic edema is earlier than HSP. Acute infantile hemorrhagic edema is observed mostly at the age of 4 months-2 years while; HSP is observed at 4-7 years [7]. Unlike HSP, systemic symptoms (joint pain, gastrointestinal bleeding, kidney involvement) are rarely observed in AIHE. The palpable purpura is observed on the lower legs and buttocks in HSP, but the purpura in AIHE has a wider extension and observed on the face and close to the distal extremities accompanied by edema [8].



**Picture 1:** Widespread skin lesions and edema were mainly distributed over the face and the lower extremities

Our patient was referred to us from a first-step health clinic due to acute tonsillopharyngitis and purpuric skin lesions. Throat cultures were positive for fast antigens. The antibiotic, steroid, and antihistamine treatment provided dramatic relief of symptoms.

### Conclusion

We conclude that AIHE should be suspected in the differential diagnosis of the children presenting to first-step health clinics, with Henoch-Schönlein purpura, since these diseases require different approaches for examination, treatment, and follow-up

**Conflict of Interest:** The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### References

1. Mentis SE, Taskesen M, Katar S, Günel ME, Akdeniz S. Acute hemorrhagic edema of infancy. *Dicle Tıp Dergisi*. 2009;36:56-58.
2. Arslan S, Çaksen H, Öner FA, Kösem M, Akçay G, Ceylan N, Odabaşı D. Akut infantil hemorajik ödem. *Çocuk Sağlığı ve Hastalıkları Dergisi*. 1999;42:397-404
3. Legrain V, Lejean S, Taieb A, Guillard JM, Battin J, Maleville J. Infantile acute hemorrhagic edema of the skin: study of ten cases. *Journal of the American Academy of Dermatology*. 1991;24(1):17-22.
4. Bozaykut A, Seren LP, İpek İÖ. Purpura ayırıcı tanısında akut infantil hemorajik ödem: Üç VakanınTaktimi. *Çocuk Sağlığı ve Hastalıkları Dergisi*. 2005;48:147-150
5. Saraclar Y, Tinaztepe K, Adalioglu G, Tuncer A. Acute hemorrhagic edema of infancy (AHED)--a variant of Henoch-Schonlein purpura or a distinct clinical entity? *The Journal of allergy and clinical immunology*. 1990;86(4 Pt 1):473-83.
6. Epçaçan S, Okur M, Tuncer O, Doğan M, Çaksen H. Purpura ayırıcı tanısında akut infantil hemorajik ödem. *Van Tıp Dergisi*. 2007;14:31.
7. Külcü NU, Değirmenci S, Arman D, güven F, Say A. Külcü NU, Değirmenci S, Arman D, güven F, Say A. Bir olgu nedeniyle akut infantil hemorajik ödem. *Çocuk Enf Derg*. 2007;1:33-35.
8. Vermeer MH, Stoof TJ, Kozel MM, Blom DJ, Nieboer C, Smitt JH. [Acute hemorrhagic edema of childhood and its differentiation from Schoenlein-Henoch purpura]. *Nederlands tijdschrift voor geneeskunde*. 2001;145(17):834-9.