

Case Report

Hematidrosis on the forehead following trauma: a case report

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Hematidrosis, also known as hematohydrosis and hemidrosis, is an episodic, rare skin disease in which blood oozes from the sweat glands.¹ Although its

etiopathogenesis is not fully known, it is thought to occur in times of emotional or physical stress.^{2,3} We present an 11-year-old patient diagnosed with hematidrosis on the



Figure 1 Clinical examination of an 11-year-old girl shows bleeding on the right side of the forehead that occurs when the subject moves from a cold to a warm environment



Figure 2 When the area of bleeding is wiped with sterile gauze with a few drops of adrenaline, the bleeding is observed to stop

right side of the forehead following trauma, who responded to local adrenaline treatment.

Case report

An 11-year-old girl presented at the polyclinic reporting approximately 20 incidences of spontaneous bleeding from the right side of the forehead over the preceding 2 days that occurred when the patient moved from a cold into a warm environment. A detailed history revealed that 1 day before the bleeding started, the patient had fallen out of bed onto the right side of her forehead. There was no history of medication use, insect bites, exposure to radiation or trauma at the time of bleeding, or of any known disease.

The results of the hemogram, prothrombin time (PT), partial thromboplastin time (PTT), bleeding time, liver and kidney function tests and urine tests, peripheral blood smear, white blood cell (WBC) count, sedimentation, C-reactive protein (CRP) and vital signs (temperature, pulse, blood pressure, respiratory rate) were all normal. In addition, evaluations revealed no anomalies such as cryoglobulinemia, cryofibrinogemia, infection with hepatitis B virus or hepatitis C virus, or syphilis. Bilateral Doppler ultrasonography and cranial magnetic resonance imaging results were normal. Hematidrosis

was suspected. Bleeding occurred regularly on the right side of the forehead whenever the subject spent a short period outside in cold air and then moved into a warm environment. This occurrence was photographed (Fig. 1). The area of bleeding was wiped with sterile gauze with a few drops of adrenaline, and the bleeding was observed to stop (Fig. 2). As the patient did not attend the follow-up examination 1 week later, no final evaluation could be made.

Discussion

The cause of this disease is not fully known. However, before any mention of hematidrosis, all potential local and systemic causes of bleeding must be discounted. Reported cases have focused on physical and emotional reasons.³ As in the current patient, bleeding can occur as discharge from the sweat glands as a result of leakage associated with damage to the capillaries in the forehead region following trauma. Vasodilation that occurs in a warm environment in damaged veins may be a factor in triggering this leakage.^{3,4}

In the differential diagnosis, there must be consideration of causes such as injury, allergic reaction, infections of the blood, autoimmune disorders, birth, bruises, medication side effects, radiation side effects, the normal process of aging, bleeding disorders (idiopathic thrombocytopenic purpura, Henoch-Schönlein purpura, thrombocytopenia, etc.), and infection.⁴ In the present patient, the anamnesis showed no medication use, no insect bites, and no exposure to radiation or trauma at the time of bleeding. The results of blood tests, including a peripheral blood smear, WBC count, sedimentation test, CRP, and vital signs (temperature, pulse, blood pressure, respiratory rate) were all normal. Pseudochromhidrosis was reported in one patient as a reddish secretion. It may be confused with hemihidrosis. Both clinical and laboratory differentiation should be made.⁵

There is no specific treatment for this condition. Although some reports indicate no response to vitamin C or hemostatic medications, some patients have responded to lorazepam, atropine, and propanolol.⁶⁻⁸ To the best of our knowledge, the response shown by the present patient to the local application of adrenaline has not been previously reported in the literature.

In conclusion, from the first occurrence of bleeding, there was an immediate secretion of red fluid. However, analysis of this secretion may help to clarify the diagnosis. In cases of hematidrosis, it is first necessary to establish whether the skin has suffered any trauma, and treatment with local adrenaline may be useful in these cases.

References

- 1 Tshifularo M. Blood otorrhea: blood-stained sweaty ear discharges: hematohidrosis; four case series (2001–2013). *Am J Otolaryngol* 2014; 35: 271–273.
- 2 Mora E, Lucas J. Hematidrosis: blood sweat. *Blood* 2013; 121: 1493.
- 3 Bhattacharya S, Das MK, Sarkar S, et al. Hematidrosis. *Indian Pediatr* 2013; 50: 703–704.
- 4 Ballas M, Kraut EH. Bleeding and bruising: a diagnostic work-up. *Am Fam Physician* 2008; 77: 1117–1124.
- 5 Thami GP, Kanwar AJ. Red Facial Pseudochromhidrosis. *Br J Dermatol* 2000; 142: 1219–1220.
- 6 Zhang FK, Zheng YL, Liu JH, et al. Clinical and laboratory study of a case of hematidrosis. *Zhonghua Xue Ye Xue Za Zhi* 2004; 25: 147–150.
- 7 Zhaoyue W, Ziqiang Yu, Jian S, et al. A case of hematidrosis successfully treated with propranolol. *Am J Clin Dermatol* 2010; 11: 440–443.
- 8 Biswas S, Surana T, De A, et al. A curious case of sweating blood. *Indian J Dermatol* 2013; 58: 478–480.