

Hematohidrosis – A Rare Case

Sir,

Hematohidrosis is a rare skin disease in which blood oozes from the sweat glands. It is a well-recognized diagnosis according to International Classification of Diseases (ICD-10-CM 74.8). A 10-year-old girl presented with this rare condition. Panic-stricken parents brought this girl with sudden onset of red sweat of 5 days duration. There were about two to three episodes per day for 5 days. Episodes appeared without any provoking factor. Each episode lasted about few to 30 minutes. The red sweating was more on the right side of the forehead and chest [Figure 1]. She developed a few episodes while in the class room. Initially, curious panicked class teacher isolated her from the other students. Meanwhile, her parents consulted a pediatrician. He advised hemogram, bleeding time (BT), clotting time (CT), and activated partial thromboplastin time (APTT), all of which were normal. When she presented to the dermatology clinic, there was active oozing of red sweat. Routine history or behavior did not suggest stress for

the child. She was admitted to a hospital for observation. After hospitalization, she developed only one episode. Secretion was examined twice under the microscope which showed the presence of many red blood corpuscles and few leukocytes. Blood routine including platelets were normal. BT, CT, APTT, and prothrombin time were normal. Serum creatinine, blood urea, total protein, serum albumin, and alkaline phosphatase were normal. Skin biopsy was not done in our case. It cannot be documented that sweat glands have definitely been implicated in this condition. Detailed psychological evaluation was done. She was anxious, but active treatment was not suggested by the psychiatrist. She did not develop further episode till date.

Hematohidrosis, also known as hematidrosis and hemidrosis, is an episodic, rare skin disease in which blood oozes from the sweat glands. Only few instances are reported to have occurred in the twentieth century. Although its etiopathogenesis is not fully known, it



Figure 1: Hematohidrosis on forehead

is thought to occur at times of emotional or physical stress. Stress-induced hematohidrosis was noted in the Bible. In the Garden of Gethsemane, the night before Jesus was crucified, His sweat was like drops of blood. "And being in agony, He prayed more earnestly. Then his sweat became like drops of blood falling down to the ground."^[1] The explanation according to Frederick Zugibe of this phenomenon is as follows. Severe mental anxiety due to a profound fear activated the sympathetic nervous system to invoke the stress fight or flight reaction to such a degree causing hemorrhage of the vessels supplying the sweat glands into the ducts of the sweat glands and extruding out onto the skin. Manonukul *et al.* reported hematidrosis in a 14-year-old girl whose biopsy showed multiple blood-filled spaces that opened directly into the follicular canals or on to the skin surface. Immunoperoxidase studies failed to demonstrate vascular nature of these spaces.^[2] There is one case report of hematohidrosis induced by trauma.^[3] It has to be differentiated from chromhidrosis and pseudochromhidrosis. Bleeding disorders can rarely cause hematohidrosis. There is no specific treatment for this condition. Spontaneous improvements can occur,^[4] although some patients have responded to propranolol,^[5] antidepressants, atropine transdermal patch, and gauze wipes with adrenaline. Almost all the case reports were transient and possibly self-limiting. Therefore, emotional support for the patient and family is important rather than trying various treatment options.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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