

## A Sweating Blood: Hematohidrosis

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### Abstract

Hematohidrosis is a condition which is very rare and in which a person sweats blood. During examination, it disappeared that as soon as it was being wiped, it does not leave behind any sign of trauma. This confirms that it was sweating of blood and not bleeding. Various causative factors have been suggested like component of skin disease, vicarious menstruation, excessive exhaustion, psychological disorders, and some unknown causes. It may also occur in bleeding disorders. We here report a case where bloody sweat was discharged from the forehead and nose, episodically more commonly in summer season in a 15-year-old healthy boy with no bleeding disorder or any other underlying cause. All the investigations done were within normal limits.

**Keyword:** Hematohidrosis; Sweating blood; Teenage boy.

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### Introduction

Bloody sweating is called hematohidrosis. It may occur in any kind of individuals who are unable to cope up with the surrounding situation and sometime may be suffering from extreme levels of stress. The physiology of sweat glands, is surrounding the sweat gland, there are multiple blood vessels in a net-like form, which gets constricted when the person is under the pressure of great emotional stress.<sup>1</sup> Then in this condition the anxiety is raised then, after some time, as the anxiety passes, the blood vessels get dilated, reaching to the point of rupture and goes into the sweat glands. When the sweat glands start producing a lot of sweat, they push the blood to the periphery, which comes out as drops of blood which is mixed with sweat.<sup>2</sup> I hereby report a case where bloody sweat discharged from the nose and sometime from

forehead episodically in a healthy young boy who did not have any underlying disorders.

### Case Report

A 15-year-old boy visited to the hospital with a history of bleeding from the forehead and nose, for the last 2-3 years. The bleeding occurred in episodes, once or twice a day, sometimes more frequently. Especially during the time of summer season, the frequency is more. In other season he used to bleed any time, either in the morning, while going to school or sometime during night time. No preceding history of any kind stress or anxiety and no preceding episode of tingling sensation of any limbs were found. Each episode started with mild watery sweat like secretion over the forehead, followed immediately with bright-red coloured secretion, from nose. Each episode lasted for about 15-20 min, and the boy remained perfectly alright during the post-episode period until the next episode. The patient is not having any history of bleeding from any other site. No history of ingestion of any anticoagulants, dyes, or other drugs was obtained from him. He did not have any history of major medical or surgical illness in the past. No family member had similar complaints.

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All other activities were normal. In other times this boy is healthy, normal, doing his activities. Suddenly he starts sweating followed by bleeding, making his family members to take care of him. The family members reported that during the time of such bleeding episodes, they use to lie him on the straight surface, and apply some ice cubes over his head.

He was brought to the hospital when he was bleeding from the nose. His general physical examination and systemic examinations did not reveal any abnormality. The skin over the forehead was normal. There was no local tenderness. No wound present inside the nose. Blood or red coloured secretion could not be formed on manipulation. On gross examination, the secretion was bright-red in colour, less viscous than blood, and it was not frank blood. On collection of the secretion and examination of its smeared preparation under a microscope. His routine hemogram, blood counts, platelet count, bleeding time (2 min), clotting time (3 min 30 sec), active partial thrombin time (25 sec; normal range 24-32 sec), prothrombin time. His (LFT) liver function tests, and (KFT) renal function tests were coming within normal limits. Urine and stool examination did not reveal erythrocytes or any abnormalities.

The patient was given atropine transdermal patch over the involved sites and he noticed gradual improvement in both the severity and frequency of the episodes. Gradually, the patient stopped getting similar episodes. The patient came for follow up, after 1 months after stopping the atropine treatment. During this period, he did not have any more episode.

## Discussion

The other name of Hematohidrosis is hematidrosis. It is a condition in which capillary blood vessels which supply blood to the sweat glands rupture, which cause them to exude blood.<sup>3</sup> It occurs under the special conditions of extreme physical or emotional stress, when the person is unable to tolerate the condition.

The different causative factors have been seen in other cases, like component of systemic disease, vicarious menstruation among girls, excessive physical exertion, psychological reasons, like stress and increased anxiety, and some unknown causes.<sup>4</sup> Acute fear related to failure and intense mental contemplation are the most frequent causes. In our case, fear factor and extreme physical exertion was the causative factor.<sup>5</sup> After taking complete history, this reason was identified.

The treatment of this condition is not so convincing and accurate.<sup>6</sup> In our case, the patient was treated with atropine transdermal patch, which was followed by complete diversional therapy. I believe that there will be further insight in the etiopathogenesis which may help to develop more comprehensive and accurate management protocol of this rare and unusual condition.

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