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Case Report

The enigma of blood sweating: rare but real

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ABSTRACT

Haematidrosis is a rare disorder where there is bleeding from intact skin and mucosa. No clear pathology has been isolated and triggers include stress and emotional disturbances. Religious beliefs and lack of knowledge about the condition among physicians impede the diagnosis and management. Seen commonly in adolescent girls, cases have been reported mostly from South East Asia. A 14-years-old boy presented with complaints of bleeding from arms, legs and mouth since the past 1 month. Detailed examination showed intact skin with no cuts or bruises. The child was hemodynamically stable and systemic examination was also normal. Blood investigations revealed no major abnormality. Treatment was started with anti-anxiolytics, beta blockers along with alternative methods like counselling and relaxation techniques. Symptomatic relief was noted particularly with relaxation techniques and counselling.

Keywords: Bleeding from skin, Blood, Haematidrosis, Propranolol, Spontaneous bleeding, Sweat

INTRODUCTION

Haematidrosis is a fascinating disorder wherein the patient starts bleeding from intact skin and mucosa.[1] Although many cases have been reported, a definitive diagnosis is delayed as people attribute the case to forces of evil or superstitions. Even doctors remain unaware regarding this condition, making the diagnosis a tricky affair. As yet, there is no clear evidence of the pathophysiology of this condition, which makes awareness about it even more important, so that an early diagnosis can be made. This is very important as it can go a long way to alleviate anxiety among patients and their parents as well.

CASE REPORT

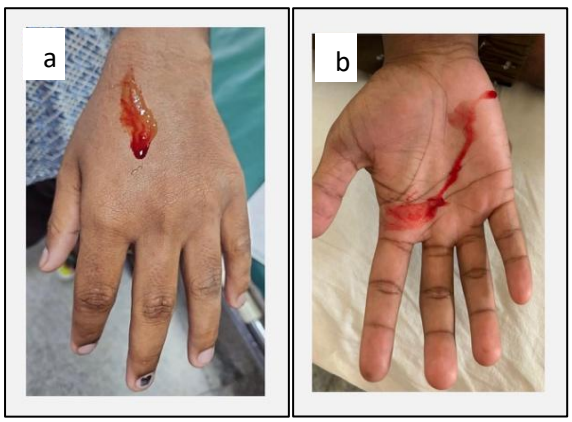
A 14-years-old boy hailing from West Bengal, first born out of a non-consanguineous marriage was brought with complaints of spontaneous bleeding from face, arms, mouth and legs since the past 2 months. Symptoms were not preceded by trauma or injury. There were no visible bruises, injuries, petechiae or ecchymotic patches on arms, legs or body. No scratch marks or other signs of easy bruisability or skin fragility were observed. On examination, his anthropometry was normal, with height and weight within 50-90th centile. There was no pallor or jaundice. Systemic examination was within normal limits as well.

He also gave history of spitting blood, which used to pool up in his mouth. He had no prior history of jaundice, anaemia, easy bruising of skin or skin fragility. During the course of hospital admission, he developed atleast 10-15 episodes of bleeding from arms, face and legs. He also had two episodes of melena. On taking detailed history, it was discovered that his father had passed away recently. He was staying with his mother, who was extremely protective. She forbade his friendship with a few of his close friends which got him upset.Detailed examination

revealed no systemic cause of bleeding or signs of easy bruising. Investigations showed (Table 1) Hb-14.1gm/dl, platelet count-2.31 lakh/microl, with PT of 11.7 sec, APTT of 29.6 sec with INR of 1.05. Liver and renal function tests were normal and there were no signs of hemolysis as well. Urine examination showed numerous RBCs with no pus cells or neutrophils. Stool for occult blood was negative.

Figure 1: Blood sweating from face.

Figure 2: Blood sweating from arms.



Figures 3 (a and b): Blood sweating from hands.

The blood-stained secretions from face and arms were sent for microscopic confirmation. Secretions showed the presence of RBCS and epithelial cells which confirmed that it was blood. History was retaken again to exclude any possibility of Munchhausen by proxy. A skin biopsy was done which showed normal study.

Table 1: List of investigations

Investigations	Results
CBC	
Haemoglobin	14.1 gm/dl
Packed cell volume	43.1 %
White blood count	11,190 cells/microl
Differential count	N- 51.2%, L- 38.3%, M- 4.5%
Platelet count	2.31 lakh/microl
Red blood cells	5.45 million/microl
LFT	
Total bilirubin/ Direct bilirubin	0.50/ 0.30 mg/dl
Total protein/ Albumin	7.60/ 5.10 g/dl
AST/ ALT	26/ 17
ALP	152
LDH	286
RFT	
Urea	24 mg/dl
Creatinine	0.60 mg/dl
BUN	11.21 mg/dl
Coagulation profile	
Prothrombin time	11.7 sec
Partial thromboplastin time	29.6 sec
INR	1.05 sec
Urine routine/ microscopy	
pH	6.5
Specific gravity	1.021
Colour	Straw yellow
Nitrite/ Leukocyte	Negative
Haemoglobin	0.75 mg/dl
Epithelial cells	0-1/HPF
Neutrophils	1-2/HPF
Erythrocytes (RBCs)	Plenty
Biopsy	
Skin punch biopsy	Normal

Management

The child was started on Propranolol at a dose of 1 mg/kg/day. Psychiatry opinion was taken and he was given thorough counselling individually and with his mother. Psychotherapy sessions were also initiated. He was also started on clonidine at a dose of 0.2 mg twice daily.

After starting medications, symptomatic improvement was noted. The frequency and severity of the episodes reduced drastically. No genetic basis has been documented for this condition as yet. Currently the child

is on propranolol and clonidine and is symptomatically better.

DISCUSSION

Haematidrosis also known as hemidrosis or hematidrosis is a rare disorder where the patient experiences bleeding from intact skin and mucosa. Literature dates back to historic periods. Leonardo Da Vinci described a soldier who sweated blood before battle.[1] Jesus Christ experienced haematidrosis while praying in the garden of Gethsemane before his crucification.[2]

The suggested diagnostic criteria for haematidrosis are (1) recurrent, spontaneous, painless and self-limited bloody secretion from skin or mucosa, witnessed and confirmed by health professionals, (2) the usual blood components are found on biochemistry studies of the discharge and (3) the site of bleeding is intact with no abrasion, telangiectasia or purpura and after wiping the area, there is no evidence of oozing. All of these criteria must be met in order to rule out organic bleeding disorders, self-inflicted bleeding, factitious disorder and chromhidrosis (coloured sweat).[3]

There are a number of theories that explain how haematidrosis occurs. The general consensus relates to intensified sympathetic activation due to extreme physical or emotional stress.[4] It is found that the sympathetic flight-or-fight response to intense stress leads to constriction of capillary vessels feeding the sweat glands. When the anxiety subsides, the blood vessels dilate to the point of rupture, leading to the passage of blood through the ducts of the nearby sweat glands and presenting as droplets of blood mixed with sweat on the intact skin surface or mucosa in almost any part of the body. Such manifestations may occur at several points simultaneously. Dermal vasculitis is also concluded as a pathological basis for haematidrosis.[1] Inspite of these discoveries, there is still not even evidence to comment on the root cause of the disease.

Treatment modalities haven't proven very effective. But in our patient, we saw significant effect with the use of propranolol.[5] Psychotherapy and counselling have been found to be equally effective as well.

CONCLUSION

Though a self- limiting disorder, it is important that the medical fraternity is aware of this condition. The term "hematofolliculohidrosis" was proposed because it appeared along with sweat-like fluid and the blood exuded via the follicular canals.[7] Seen mostly in young children in developing countries, it responds well to propranolol and anti-anxiolytics. Spontaneous remission has also been noted in some cases. No genetic basis has been found so far.

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