

Recurrent Bleeding and Bruising Over Little Finger: A Diagnostic Conundrum!

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Introduction

A 50-year-old female presented with a history of recurrent focal bleeding, followed by bruising of the volar aspect of the little finger of her right hand since last 10 years [Figures 1 and 2]. Episodes were induced by minor injuries during household activities. Lesions recurred every 2–3 months, on the same site. Bleeding was associated with mild pain and burning sensation and stopped easily on applying pressure, followed by the development of a bluish welt at the affected site which resolved within 4–8 days on its own. Tip of the finger and nail bed were never involved. No history of any sequential color change or any drug intake could be obtained.

On examination, a bluish-purple bruise was seen over the little finger of right hand. Peripheral pulses and finger

capillary refill test were normal. Routine investigations, including complete hemogram, bleeding time, clotting time, and coagulation profile were within normal limits. Electrocardiogram showed a normal pattern. No abnormality detected on Doppler study of the affected arm. Histopathological examination of the lesion revealed acanthotic epidermis with mild hyperkeratosis. The superficial dermis showed dilated vascular channels lined by a single layer of endothelial cells along with scanty lymphocytic infiltrate. No abnormality was found in the deep dermis [Figures 3 and 4].

Question

What is your diagnosis?



Figure 1: An area of erythematous bluish lesion over volar surface of right little finger



Figure 2: A closer view of the lesion after biopsy

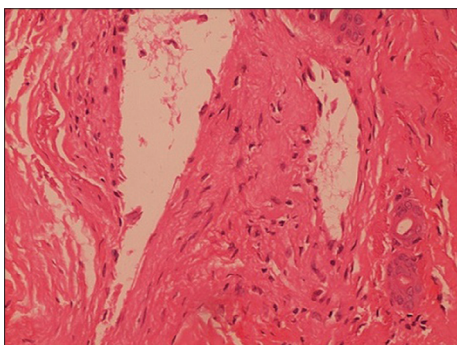


Figure 4: Photomicrograph showing multiple dilated vascular channels. (H and E, $\times 400$)

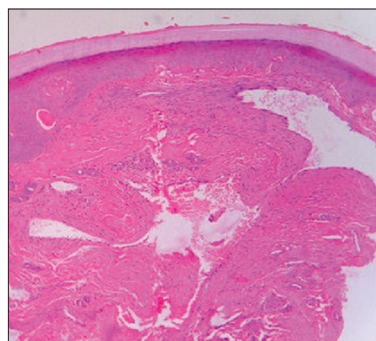


Figure 3: Photomicrograph showing multiple dilated capillaries present in dermis with overlying acanthotic epidermis. (H and E, $\times 100$)

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Access this article online	
Quick Response Code: 	Website: www.e-ijd.org
	DOI: 10.4103/0019-5154.169155

Answer

Diagnosis: Achenbach's syndrome.

Discussion

Achenbach's syndrome is also referred to as "paroxysmal hand hematoma" or "finger apoplexia." First described by Walter Achenbach in 1958 for recurrent sudden episodes of focal bleeding and discoloration of the palmar surface of hand or digits in a middle aged female.^[1] Lesions most commonly involve middle and index finger.^[2] Episodes may occur spontaneously or after trivial trauma. The exact etiology of this syndrome is still a mystery. Subcutaneous bruising has been offered as a mechanism in one report.^[3] Another recent report suggests that significantly reduced digital blood flow, as seen on arteriography, may be a cause.^[4] Reduced capillary resistance with normal capillary microscopy was also reported in few cases.^[5] Prodromal symptoms such as pain, tingling, itching may occur few hours before active bleeding and discoloration appears.^[2,6] Bleeding usually stops within minutes after applying local pressure, and discoloration also disappears in 4–6 days. Serious bleeding in other organs do not occur.^[6] It is important to note that tip of fingers and nail bed are never involved as seen in ischemic diseases.^[5] Recurrence rate is highly variable. One of the major concerns is to distinguish this syndrome from other conditions that can also present with bluish discoloration of digits such as occlusive arterial diseases, connective tissue diseases, use of drugs such as ergotamine, nerve lesions, and thoracic inlet syndrome.^[7] However, these conditions often involve all the fingers simultaneously and other systemic manifestations or recognized abnormality of vessels, nerves, or blood is usually present. Another condition that needs to be distinguished is "painful bruising syndrome" or "autoerythrocyte sensitization syndrome" that presents in similar fashion but bruising is not limited to digits and also involve legs and trunk.^[8] Also, it is strongly associated with psychiatric complaints.^[9] Diagnosis is strictly based on clinical features in Achenbach's syndrome because all the routine investigations including Doppler examination are usually normal.^[4] Angiography may be done to rule out any severe etiology in doubtful cases. However in the light of a typical history and self-limiting course of Achenbach's syndrome, such investigations are seldom required. One article compared seven cases of Achenbach's syndrome and mentioned some comorbidities to be associated like cholelithiasis, joint pain, Raynaud's syndrome, thyroid abnormalities, allergy, and migraine.^[10] But, no pathogenic relation could be established between Achenbach's syndrome and any of the above-mentioned conditions until date. Management needs proper

counseling to alleviate anxiety during acute episodes and avoidance of trigger factors.

Learning Points

- Achenbach's syndrome is a benign, self-limiting condition of unknown etiology characterized by paroxysmal hemorrhage and bruising of hand or fingers
- Acute episodes can be alarming for both patients and clinicians
- Diagnosis of this condition is strictly clinical as all routine investigations and Doppler study are within normal limit
- Proper knowledge about this entity is a must, especially because it can be easily mistaken for some serious vascular disease leading to needless diagnostic tests and mental agony to the patient
- Counseling with symptomatic management is all that is required in cases of Achenbach's syndrome.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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How to cite this article: Mishra P, Jain A, Sen S, Majumdar B. Recurrent bleeding and bruising over little finger: A diagnostic conundrum!. *Indian J Dermatol* 2015;60:632-3.

Received: April, 2015. **Accepted:** July, 2015.