

CASE REPORT

Painful Blue Finger—Achenbach's Syndrome: Two Case Reports

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Introduction: Herein, two cases of a rare, self-resolving condition are described. Vascular surgeons are often called to see patients with spontaneous discolouration of extremities and digits. Often after extensive investigations no diagnosis can be ascertained and the condition resolves spontaneously.

Report: Two cases are described here, which presented with spontaneous onset of this condition and after extensive testing no cause was ascertained. The condition resolved spontaneously.

Discussion: Achenbach's syndrome is a benign, self-limiting condition of unknown aetiology and clinicians should be aware of it to avoid unnecessary time-consuming and expensive investigations.

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INTRODUCTION

Achenbach's syndrome is a rare, self-limiting condition, which causes spontaneous bruising in the hand or fingers. The aetiology is unknown. The acute phase can be very alarming and could suggest more serious vascular disease.

In Ireland, this condition is seen occasionally. It is important to be aware of it as these symptoms may suggest other serious upper limb vascular conditions that warrant further investigations.

CASE REPORT 1

A 55-year-old non-smoking woman presented with a history of sudden onset of pain in the left middle finger (Fig. 1). The patient did not have any other past medical history. Subsequently, bruising appeared on both aspects of the finger with sparing of the distal phalanx. This was accompanied by pain and coldness. She had no previous similar episodes. There was no history of trauma.

A thorough history was obtained and careful clinical examination was carried out. Finger plethysmography revealed a pressure of 110 mmHg on the affected finger versus 108 mmHg on the same finger of the right hand.

The swelling and discolouration resolved spontaneously in the next 10 days.

CASE REPORT 2

Another 55-year-old woman presented with a two-day history of swelling and discolouration of the right index

finger (Fig. 2). She was not a smoker and denied any history of trauma. She had a past history of psoriatic arthritis but was not on any treatment for it. On examination the rest of her limb and digits were well perfused. The bluish discolouration was present on the finger with sparing of the tip.

After a careful history and physical examination finger plethysmography was carried out with a pressure of 123 mmHg in the affected finger versus 118 mmHg in the index finger of the left hand.

Again, the swelling and discolouration resolved completely by itself in one week.

Of note, no abnormality was discovered on computed tomography angiography of the upper limbs and blood tests, including full blood count, renal profile, C-reactive protein, erythrocyte sedimentation rate, and auto-antibody screening. Both patients also had normal echocardiograms and Holter monitoring.

DISCUSSION

Achenbach first described the syndrome in 1958 as a rare, self-limiting benign condition with paroxysmal bruising in the hand or fingers.¹ It affects primarily women over 50 years of age. Patients report spontaneous onset of pain, which is burning in character, with associated itching or discomfort. Involvement of the middle and index fingers are most commonly reported.²

Patients usually give a history of development of pallor, swelling, and coldness with restricted movement and inability to flex the fingers. History of association with acrocyanosis, gastrointestinal disorders, migraines and gallbladder disease has been reported in the literature.³ The condition is best managed expectantly and generally resolves within a few days as in the two cases described herein.

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Figure 1. 55 year old lady presenting to the A&E with discoloration of the left middle finger with finger tip sparing.



Figure 2. 55 year old presenting to the A&E department with painful discoloration of the right index finger.

The diagnosis is mainly clinical. The haematological, coagulation, biochemical parameters, including immunological screening, conventional radiology, and Doppler examination, are normal. It is also commonly reported that

the distribution of the discoloration is limited on the volar aspect of the digit with sparing of the fingertip.^{3,4}

Capillaroscopy has been described as a useful investigation. It shows multiple severe haemorrhages without any other alterations of capillary morphology or blood flow. Previous reports suggested that nail bed capillaries are not affected.⁵

The aetiology is not clear but is probably of vascular origin.

Robertson reported two cases of the condition with reduction in digital blood flow on arteriography. Ergotamine as an antimigraine medication may influence the microvascular digital flow and induce a vasospastic reaction.⁶

The differential diagnosis includes trauma, Raynaud's syndrome, spontaneous rupture of the vincula, autoerythrocyte sensitisation syndrome (which commonly involves the legs and trunk), and factitious dermatitis (intentional self-inflicted dermatitis).

CONCLUSION

Achenbach's syndrome, when acute, is very impressive. Awareness of the existence of this benign condition is important. There is no need for unnecessary invasive investigations and the patient should be reassured.

CONFLICTS OF INTEREST

None.

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