

Case 26

A young woman with cold blue hands



Figure 26.1

Figure 26.1 shows the hands of a secretary aged 20 years, which was taken on a warm, sunny day, when she is usually free of symptoms. However, the left hand has just been immersed in a bowl of water with ice cubes floating in it for a period of 5 min.

What do you notice about the appearance of the left hand?

The left hand has become bluish-white compared with the normal appearance on the right side. The patient also says that the left hand has now become painful, tingling and numb. This exactly mimics what her hands and feet feel like in the cold weather.

What disease do you suspect she has?

Raynaud's disease, named after Maurice Raynaud,* a 19th century Parisian physician who gave a good clinical description of this condition.

What are the clinical features of this condition?

It nearly always affects females. Cold, painful, numb hands (and often feet) dating back to childhood and occurring in cold weather. Symptoms are absent or much milder in warm weather. The extremities become bluish-white when exposed to cold. Gangrene of the tips of the digits may occur, but is very rare. As the hand is warmed and the circulation improves, the affected areas turn red and throb.

What is the assumed pathology of this condition?

Idiopathic spasm of the digital arterioles. The peripheral pulses are perfectly normal in this condition.

What other conditions produce arterial impairment in the upper limb?

A whole variety of vascular diseases can produce ischaemic symptoms and signs in the upper limb. These are grouped together under the term Raynaud's phenomenon, in contrast to Raynaud's disease. These include arterial trauma, embolism (Fig. 26.2a), atherosclerosis, cervical rib, scleroderma, other collagen diseases (Fig. 26.2b), and cryoglobulinaemia; it also occurs in workers using vibrating tools. In contrast to patients with Raynaud's disease, gangrene of the fingers may occur in these patients.

What treatment can be advised for this patient?

Some patients emigrate to a hot, sunny climate. For those less fortunate, the use of fur-lined or heated gloves and boots is advised during cold weather. Smoking should be stopped, as should β -blockers. A trial should be made of vasodilator drugs such as calcium channel antagonists like diltiazem and nifedipine. Sympathectomy produces dramatic improvement but, unfortunately, this is often not long-lasting.

*Maurice Raynaud (1834–1881), physician, Paris.



(a)



(b)

Figure 26.2 (a) A hand following digital emboli. (b) Hands of a patient with scleroderma.