Corkscrew collaterals in Raynaud's syndrome

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Accepted 22 April 2016

DESCRIPTION

Raynaud's syndrome (RS) is an episodic peripheral vasospasm induced by cold stress. It is important to distinguish secondary obstructive RS from primary vasospastic RS because the former is associated with a poor prognosis. However, there is no consensus test for distinguishing secondary from primary RS.

We describe a case of a 64-year-old woman who presented with pain and cyanosis in her fingertips on exposure to the cold (figure 1). She was weakly positive for antinuclear antibodies but did not fulfil

Figure 1 Cyanosis was observed in the fingertips on exposure to cold.

Figure 2 Digital subtraction angiography showing occlusions of digital arteries, with corkscrew collaterals (arrow).

Figure 3 Corkscrew collaterals were detected by colour duplex ultrasonography.

Video 1 Corkscrew collaterals were detected by colour duplex ultrasonography.

the diagnostic criteria for connective tissue diseases. Early treatments, including medication with a calcium channel blocker and prostaglandin analogues, did not improve her symptoms. Digital subtraction angiography revealed multiple occlusions of the digital arteries, with corkscrew collaterals surrounding the avascular area (figure 2, black arrow). Corkscrew collateral arteries in the digit of the right hand were able to be visualised as a snake sign, using duplex ultrasonography (figure 3, video 1). Recently, ultrasonography has been in use to identify corkscrew collaterals that develop after an occlusion of the main trunk.^{1 2} Their existence in patients with RS indicates secondary obstructive RS. Colour duplex ultrasonography is useful for the diagnosis of primary and secondary RS.

Learning points

- ▶ Corkscrew collateral arteries in digits can be visualised by colour duplex ultrasonography.
- ▶ Colour duplex ultrasonography is useful for the diagnosis of primary and secondary Raynaud's syndrome.

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To cite: Fujii Y, Teragawa H, Kihara Y, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2016-215841

Contributors YF and YK contributed to drafting the article and conception of this study; HT was involved in performing the angiography; YF was involved in performing the duplex ultrasonography; YF and YH contributed to revising the article critically for important intellectual content.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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