

A NEW METHOD OF DEMONSTRATING SPIDER NEVI

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ABSTRACT

A method is described for demonstrating the most important characteristic feature of a spider nevus. The method requires no extraneous equipment and can be performed by a clinician using the hands only. As far as can be ascertained, the technique has not previously been described and as such represents a new clinical sign.

INTRODUCTION

Nevus araneus is a vascular lesion composed of dilated arterioles radiating out like the spokes of a wheel from a central feeding arteriole or small artery. This unique vascular structure bears a superficial resemblance to a spider and is commonly referred to as a 'spider nevus'. While they can be found in normal healthy individuals such as children or pregnant women, they develop anew in patients with liver disease, especially alcohol-induced cirrhosis.¹ Indeed, the presence of more than ten spider nevi in such patients correlates with a poorer prognosis and relatively increased mortality risk of 3.3.² Since the central vessel is arterial and the direction of blood flow centrifugal, applying increasing pressure over the central point will result in the nevus blanching in a centripetal direction. On release of pressure, the nevus can clearly be seen to fill from the centre, often in a pulsatile fashion. These characteristics are used to differentiate spider nevi from most other forms to telangiectasia, which tend to blanch if pressure is applied to either end of the ectatic vessel. The two classical methods that have been described previously to demonstrate spider nevi require the clinician to have some equipment available in order that pressure can be applied to the central feeding vessel.³

TECHNIQUE 1

Pressure is applied directly to the central vessel using a pointed object such as an orange stick, the tip of a ballpoint pen or the end of a paper clip. With increasing pressure, the vascular lesion suddenly blanches. On release of pressure, the nevus quickly fills from the centre (see Figures 1 and 2).

TECHNIQUE 2

Using a microscope slide or the lens of a pair of spectacles, pressure is applied to the whole nevus until the lesion, as viewed through the glass, blanches; as pressure is slowly released, the centrifugal filling of the nevus is clearly demonstrated (see Figures 3 and 4).

A NEW METHOD

Both of the above techniques, while excellent at demonstrating the unique features of the lesion, suffer from the disadvantage of requiring some form of extraneous equipment.

The anatomy of the vascular lesion is such that the central feeding vessel runs for a distance perpendicular to the skin surface and is surrounded by the subcutaneous connective tissue. By placing two digits, one on either side of the nevus, and pulling them apart, pressure is created in the subcutaneous tissue, which results in closure of the lumen of the feeding vessel and the blanching of the nevus (see Figure 5). Releasing the tension slowly reduces the degree of closure of the vessel, and the vascular lesion can be shown to fill from a central point and in a centrifugal direction. The rate



FIGURE 1

Spider Nevus with pressure applied to central feeding vessel by tip of orange stick.



FIGURE 2

Release of pressure results in filling of radial vessels from central point.

**FIGURE 3**

Perspex slide pressing on nevus results in blanching of lesion.

**FIGURE 4**

Gradual reduction of pressure allows observation of pulsatile filling of nevus from central feeding vessel.

**FIGURE 5**

Using thumbs placed on either side of nevus and drawing apart, the neck of the central feeding vessel is occluded resulting in blanching of the lesion.

**FIGURE 6**

Release of pressure between the examiner's thumbs permits whole nevus to gradually fill from the centre.

of filling is controlled by the tension being applied by the examiner's fingers (see Figure 6).

REFERENCES

- 1 Bean WB. *Vascular spiders and related lesions of the skin*. Springfield, IL: Thomas Books; 1958.
- 2 Orrego H, Israel Y, Blake JE *et al*. Assessment of prognostic factors in alcoholic liver disease: toward a global quantitative expression of severity. *Hepatology* 1983; **3(6)**:896–905.
- 3 Bean WB. The arterial spider and similar lesions of the skin and mucous membranes. *Circulation* 1953; **8**:117–29.