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Instruments for Lymphography*

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Lymphography is a well known and widely used radiologic investigation, devised by *Kinmonth* (3) in 1952. Several investigators have suggested modifications of the original method, to render the execution easier (1, 2, 4, 5, 6, 7, 8, 9, 10).

Our experience covers 1500 lymphographies, since September 1961. We have considered many of the technical innovations proposed by other workers but finally we found that we had to design new instruments in order to greatly reduce the difficulties of exposing and cannulating lymph vessels.

Fig. 1 shows the special clamp, forceps and needles that we currently use for lymphography. Clamp (a) is used for holding the isolated lymph vessel, separated from its tunica adventitia with the aid of the special forceps (b). Details (c, d, e and f) illustrate how the tips of the forceps and clamp are made. The clamp has a groove running along the two jaws; the inside of the upper jaw has small teeth that grip the lymph vessel. The cone-shaped tip of the forceps (b) also has a groove to admit the vessel and at the end of the groove there is a cylindrical chamber to collect the adventitial

* The instruments are made by Messrs Mayo-Milano, Italy.

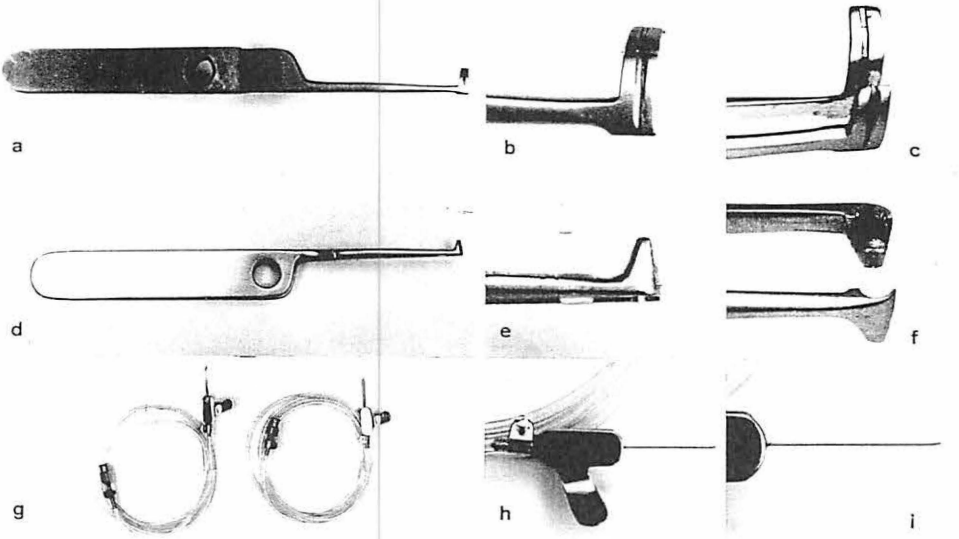

Fig. 1 (a) (b) (c) clamp. (d) (e) (f) adventitia forceps. (g) (h) (i) needles, adapters and polyethylene tube. The overall length of the needle is 4.3 cm, the thickness of the body 2 mm, the tip, protected at (g) by teflon sheath, can be 30–25 gauge.

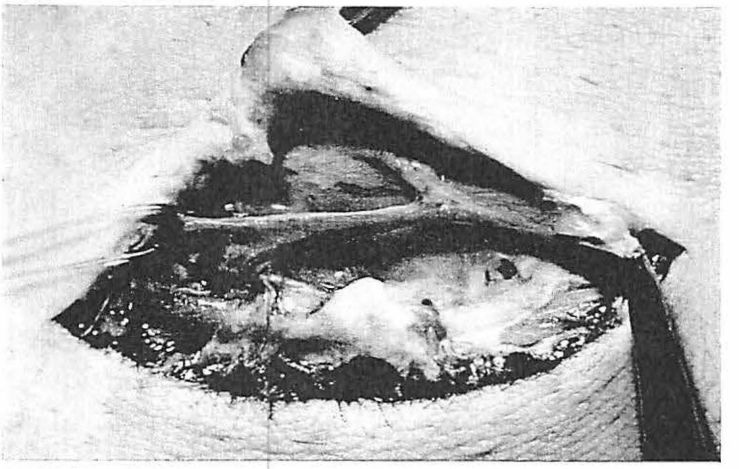

Fig. 2 The isolated lymph vessel presents abundant adventitial tissue.

tissue that is removed when the cone runs along the vessel in a caudal direction. The flattened needles are mounted by special grips to a polyethylene tube. The kit is sterilised in a solution of detergicide. It is very simple to change the needles and to wash the kit. The needle has a side-plate with an anatomic curve which is convenient to hold while cannulating.

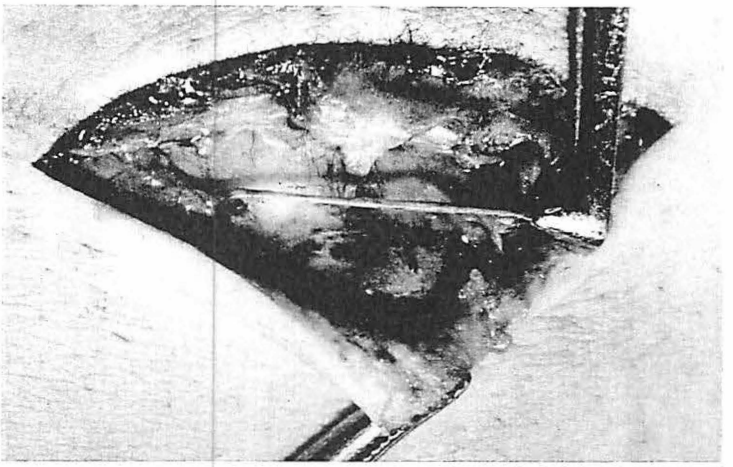

Fig. 3 The forceps for removing the adventitia has run along the vessel in a caudal direction.

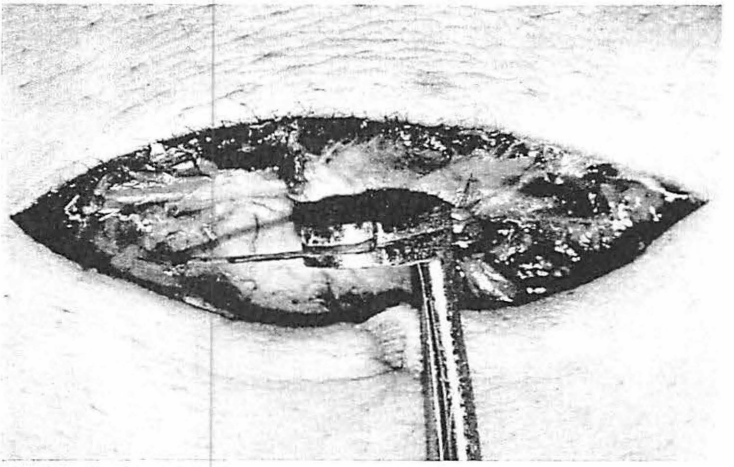

Fig. 4 The clamp in position holding the lymph vessel in the groove.

Figs. 2, 3, 4, 5 and 6 show the successive stages of exposure, isolation and cannulation of a lymph vessel. The other steps of the lymphography are performed according to the international standardized procedures.

Summary

The execution of lymphography entails some manual difficulties, chiefly the rapid exposure and cannulation of a lymph vessel through a small skin incision. With the instruments presented it is nearly always possible to expose a single lymph vessel of the dorsum of the foot, even of small caliber, and to cannulate it.

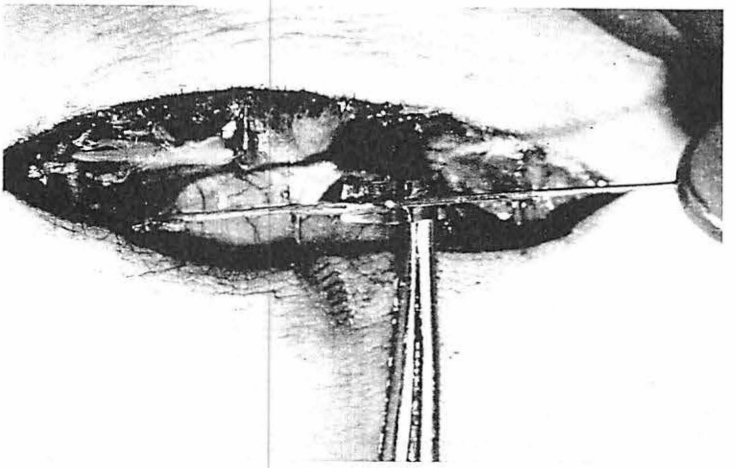

Fig. 5 Cannulation: the forceps is rotated upwards and the needle runs along the upper inlet to enter the lymph vessel.

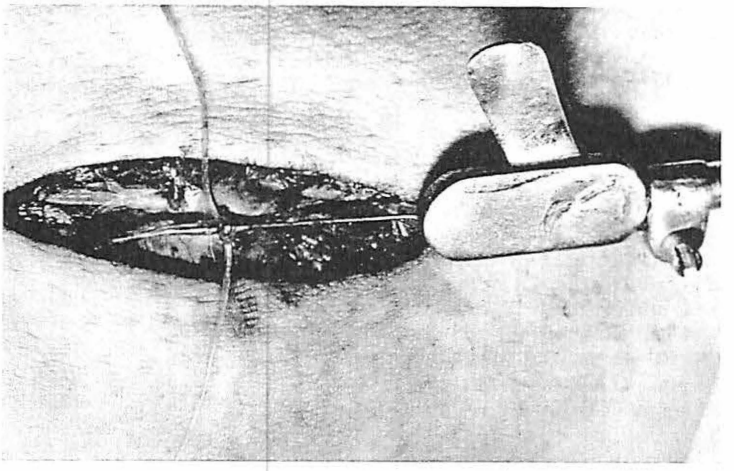

Fig. 6 The needle is tied at this point.

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