

The Use of a Dermojet Injector for Skin Biopsies

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Since the report by Krantz (1960) on the successful use of a dermojet injector for local anaesthesia, this instrument has been found to have a wide range of usefulness: in dental surgery (Stephens & Kramer, 1964); in dermatology (Juel-Jensen & MacCallum, 1965; Moynahan & Bowyer, 1965); in large-scale programmes of B.C.G. vaccination (Griffiths *et al.*, 1965) and of measles vaccination (Cooper *et al.*, 1966). The object of this paper is to show that it can also be of value in carrying out skin biopsies.

The dermojet injector ('jet-gun') is a compact apparatus 16 cm. long, and when held at right

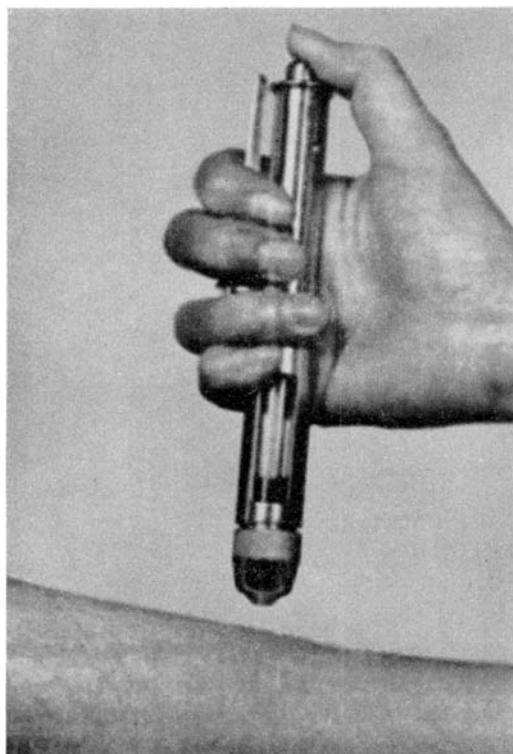


FIG. 1. Dermojet of Dr. Krantz (Breveté S.G.D.G.) as used in this trial.

angles to the skin, with the nozzle 0.5 cm. away, painlessly delivers 0.1 ml. of fluid into the dermis when the trigger is pressed by the thumb – fig. 1. The problem was to find the best way of delivering the local anaesthetic into the skin using the minimum number of applications, and it was soon found that the actual region of skin injected was of no value to the histologist because of tissue disruption. By a process of trial and error a successful method evolved, and consisted of cleaning the skin with ether, drawing a circle 1 cm. in diameter around the biopsy site with a skin-marking pencil, and then administering a jet of local anaesthetic at eight points around, yet close to the circle – fig. 2. It is simple enough to space the eight insertions of local anaesthetic outside the circle as a wheal appears immediately at each site, and after waiting a minute or two the region within the circle is ready for biopsy. Slight discomfort may be experienced when the deepest part of the tissue is removed but is no worse than with standard methods of anaesthesia. As the chamber within the dermojet holds 4.0 ml. of fluid, five biopsies can be carried out before refilling, so there can be a considerable saving of time if a large number of biopsies are required as, for example, under field conditions; also expense is curtailed as the only syringe required is the one with which to fill the chamber.

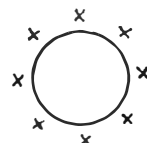


FIG. 2

ACKNOWLEDGEMENTS

I would like to thank Dr R. J. W. Rees of the National Institute for Medical Research for suggesting that this trial should be carried out; Dr P. W. Muggleton of Glaxo Group Ltd. for supplying a dermojet on loan; and Dr D. S. Ridley of the Hospital for Tropical Diseases for the histological examinations.

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