

## COMUNICAÇÃO

### NEEDLE AUTOPSY

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*Often in tropical practice there is not time or conditions to do a proper autopsy on a patient who has died. A needle biopsy technique is described for limited closed autopsy examination to clarify organ histology. In this way the clinician may resolve puzzling fatal disease.*

*Key-words: Death. Needle biopsy autopsy. Clinical clarification.*

A recent large autopsy study of AIDS<sup>1</sup> and a subsequent editorial comment<sup>3</sup> prompts me to share a method I have used with success in the tropics. I developed the first investigation in the Gambia West Africa to find out how many hospitalised children were dying of cerebral malaria. Peripheral blood parasitaemia with *P. falciparum* is the rule in such children in the Gambia and not proof of cerebral involvement<sup>2</sup>. Brain biopsies from dead infants obtained by inverting the upper eyelid and driving the biopsy needle into the frontal lobe provided cerebral biopsies sent in 10% formol saline to London. Only a half showed cerebral malaria the rest being viral encephalitis, African trypanosomiasis and infantile beri beri. Subsequently some children with convulsion syndrome woke up and left the ward after routine intravenous thiamine injection installed as a result of this investigation.

Subsequently I used such limited autopsy in various parts of the tropics when I had no facilities to do a *post mortem*. One of the six needles I took to New Guinea is illustrated in Figure 1. The needle points are protected by glass tubing which are the superior and inferior images. The needle, its cannula and the split biopsy pin are shown from above. The bevel of the split pin has been separated by a small paper ball. Used in life for liver and kidney biopsies in death material can be obtained from any organ accessible percutaneously.

Figure 2 shows the cylinder protecting the sterilised needle which I routinely carried in

my pocket with a small bottle of formol saline and my stethoscope. This aluminium cylinder is sterilised in hot water together with the

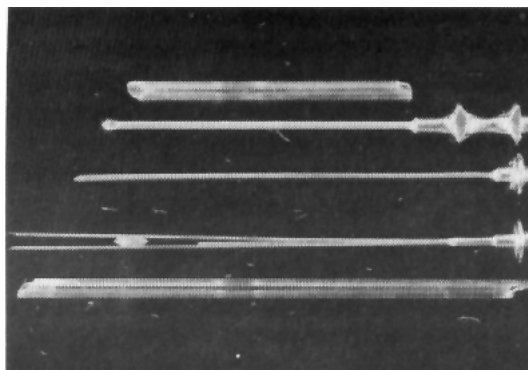


Figure 1 - Vim Silverman biopsy needle shown from above: protective glass tube for needle; needle and Bevel; split pin for biopsy separated by paper pellet; protective glass tube for split pin.

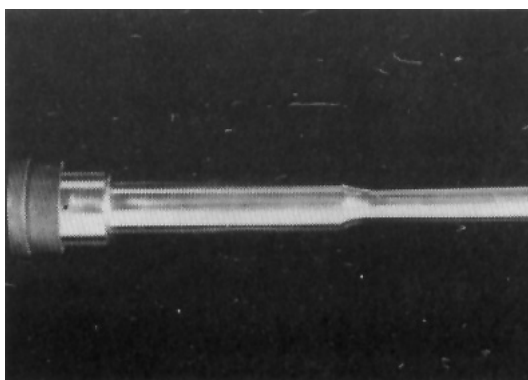


Figure 2 - Protective aluminium tube for biopsy needle. Note rubber cap at left leaves hole bare to allow steam of sterilisation to scape.

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Recebido para publicação em 29/01/96.

strong rubber cap (left) and the clean needle. With sterile forceps the needle is assembled with its glass tubing guards and slipped into the aluminium tube which is held in a gloved hand because it is hot after boiling in the kettle. The rubber cap is applied as shown leaving the small hole in the tube below the cap exposed as in Figure 2. After the steam has escaped the cap is depressed sealing the tube and its contents in a sterile state that can be maintained in the pocket for a week.

As the cited editorial implies<sup>2</sup> if the clinician doesn't know why he lost his patient he is hardly practicing scientific medicine. Needle autopsy is not perfect but histology may give the answer. Such an approach could have value in the Amazon as it did for me in West Africa.

## RESUMO

*Muitas vezes, em clínicas de países tropicais, não há tempo nem condições para se realizar uma necropsia adequada em um paciente que foi a óbito. Um técnica de biópsia por punção é descrita para fins de exame em necropsia limitadamente fechada, para esclarecimento da histologia do órgão. Dessa maneira, o clínico pode resolver enigmas de doenças fatais.*

*Palavras-chaves: Morte. Biópsia e necropsia por punção. Esclarecimento clínico.*

## ACKNOWLEDGEMENT

The author wishes to thank Sr. P.H.B. Leite for the high quality of his photographs.

## REFERENCES

1. Lyon R, Haque AK, Asmuth DM, Woods GL. Changing patterns of infections in patients with Aids: A study of 279 autopsies of prison inmates and non incarcerated patients at a University Hospital in Eastern Texas. 1984-1993. *Clinical Infectious Diseases* 23: 241-247, 1996.
2. Marsden PD. The Sukuta project. *Transactions of the Royal Society of tropical Medicine and Hygiene* 58: 255-289, 1964.
3. Schwartz DA, Herman CJ. Editorial response: The importance of autopsy in emerging and re emerging infectious disease. *Clinical Infectious Diseases* 23: 348-354, 1996.