ANY QUESTIONS?

We publish below a selection of questions and answers of general interest.

Sensitivity to Vitamin B₁₂

Q.—Is hydroxocobalamin more likely than cyanocobalamin to cause hypersensitivity in a patient or vice versa? If a patient is sensitive to one can he tolerate the other?

A.—Sensitivity reactions were a common complication of parenteral liver extracts but are extremely rare with vitamin B₁₂. The reactions may be severe, with peripheral circulatory collapse, shivering, generalized itching,¹ and even death.² Less severe reactions, are urticaria coming on some hours after the injection of vitamin B₁₂.³

It is highly probable that a patient sensitive to cyanocobalamin will also be sensitive to hydroxocobalamin, since the former is readily and rapidly converted to hydroxocobalamin. Høvdning's patient¹ had an anaphylactic reaction after an injection of hydroxocobalamin, and skin-testing gave a positive reaction to both cyanocobalamin and hydroxocobalamin. Indeed, such patients also give positive reactions to methylcobalamin and adenosylcobalamin.

Fortunately, patients who react can be treated by giving large doses (such as 1,000 µg. daily) of vitamin B₁₂ by mouth, and this can be taken without untoward effect.³

REFERENCES

- 1 Høvdning, G., *British Medical Journal*, 1968, **3**, 102.
- 2 Roy, A. N., *Journal of the Indian Medical Association*, 1961, **36**, 262.
- 3 Gillhespy, R. O., *Lancet*, 1955, **1**, 1076.

Plastic Packaging for Autoclaving

Q.—Which plastic films are permeable to steam? Are such plastic materials suitable for packing instruments for steam sterilization?

A.—It is usually stated that plastic films are not penetrated by steam and that packages made of them should be sealed after auto-

claving, which is not a very satisfactory sequence.

This is not entirely true of all plastics, of which there are now a great number. D. W. Plester¹ gives the properties of 17 different individual plastics or classes of plastic, including their stability to dry and moist heat, irradiation, ethylene oxide, and liquid disinfectants. Polyamides (nylons) are the least suitable for this purpose, since they are penetrated by steam to a limited extent, but bursting may occur or pinholes or leaks at the seam may develop.

For small packs of instruments, as used for dressings, it is far better to seal them in a double layer of a suitable paper, through which both air and steam diffuse readily.

REFERENCE

- 1 Plester, D. W., *Plastics Institute Transactions and Journal*, 1967, **35**, 579.

Excessive Reaction to Heat

Q.—Is it possible to diagnose whether excessive reaction to heat (in children or adults) is due to an organic fault in the heat-regulating mechanism or to some functional cause such as nervousness?

A.—Faults in the heat-regulating mechanism can be detected, if they are relatively major, and accounts have been published of individuals who are unable to regulate their body temperature, either in cold or hot conditions.¹ Such failure is usually due to a lesion in the hypothalamus. A degree of failure can also be attributed to peripheral mechanisms of body-temperature control. In rare cases there can be an almost complete absence of sweat glands, and in such cases the individual has great difficulty in hot conditions, with a liability to heat syncope.

In cases of extensive lesions of the skin—e.g., widespread eczema—there is a greatly increased blood flow in the skin.² In the affected areas there is no vasoconstriction in

the cold, and body temperature can drop because of the excessive loss of heat from the skin.³ Hyperhidrosis of the hands is a well-recognized condition, and has been treated successfully by sympathectomy.

Fortunately, none of these conditions are very common, but it should be realized that there is a wide individual variation in the response to heat, particularly in sweat rate, and it becomes a matter of definition or judgement to decide when a response is excessive.

REFERENCES

- 1 Cooper, K. E., *Scientific Basis of Medicine. Annual Reviews*, 1965, p. 239.
- 2 Fox, R. H., *Journal of the Royal College of Physicians of London*, 1967, **1**, 372.
- 3 Fox, R. H., Shuster, S., Williams, R., Marks, J., Goldsmith, R., and Condon, R. E., *British Medical Journal*, 1965, **1**, 619.

Notes and Comments

Tea, Coffee, and Migraine.—Dr. J. A. BURTON (Medical Officer, Student Health Service, University of Sheffield) writes: I beg to differ with the opinion of your expert ("Any Questions?" 18 October, p. 154) on the effects of tea and coffee on migraine. I have seen several patients who have definitely related the onset of an attack to previous ingestion of coffee in particular. It may be the caffeine element which, acting as a central stimulant, induces an attack of migraine in particular patients. The stimulating effect is certainly well known and may produce an excited state, and its relationship with the production of paroxysmal atrial tachycardia is a well-recognized effect. Its inclusion in many tablets taken to abort migraine is, I think, simply to provide a mild degree of stimulation which may help overcome the lethargy and general malaise which patients feel in an attack of migraine.

OUR EXPERT replies: It is, of course, a common idea that an excessive intake of coffee, and to a lesser extent tea, provokes headache in a number of persons. This notion has a particular vogue on the Continent. Personally I am sceptical about coffee and tea as precipitants of true cases of migraine, and I cannot recall having seen a clear-cut instance out of a considerable experience of patients with migraine.

NEW APPLIANCES

Spring-loaded Dissecting Clamp

Mr. LAURENCE TINCKLER, Royal Gwent Hospital, Newport, Monmouthshire, writes: A commonly performed manoeuvre in operative technique is to mobilize a structure, such as the cystic duct or a blood vessel or a vascular pedicle, by clearing away the surrounding structures with a curved artery forceps. The forceps is thrust into the tissues surrounding the structure to be mobilized and the blades are spread apart, thus separating and parting the tissues until eventually the target structure is clearly seen for clamping, cutting, and/or tying.

In order to apply clamps or to cut the structure or to pass ligatures around it with an aneurysm needle, it is an advantage to leave the dissecting forceps in position, with the blades spread apart to

support and delineate the structure. This manoeuvre is facilitated by the instrument illustrated.

The instrument is a curved haemostatic clamp with a strip steel spring interposed between the shanks. Release of the ratchet of the forceps causes the jaws of the clamp to open and remain apart under the influence of the spring. The clamp remains in the open position unattended, and, like a book-mark, "keeps the place." The operator's hand which has been used to introduce the clamp is then available to clamp and cut the structure mobilized.

This instrument, made in two sizes—7 and 11 in. (18 and 28 cm.)—and in half-curved and fully curved forms, is available from Thackray Ltd., of Leeds.