

A particularly striking case in point is the influence of thyroid treatment on the effects of amphetamine. Both the stimulant action and the toxicity of this drug in the rat are increased by the treatment with thyroid hormones, the latter by as much as 20 times. It is important here to distinguish between the effects of hormones on activity of drugs and on toxicity. Thus corticosteroids are known to potentiate pressor responses to catecholamines but to inhibit their toxicity. If the theory of Spencer and West¹ is right, that thyroxine induces a deficiency of glucocorticoids, then thyroxine should inhibit the pressor responses to catecholamines but raise their toxicity. In our experience in rats both the former and the latter are in fact true. In this context a detailed study of the effects of thyroxine on drug action in adrenalectomized animals would be most interesting.

We have confirmed the well-known observations that hyperthyroidism increases the sensitivity of cardiac muscle to catecholamines, and found that it increases the sensitivity of the uterus to catecholamines as well. These effects of thyroxine are not, however, specific for catecholamines, because we find that sensitivity to other naturally occurring mediators, such as histamine, 5-hydroxytryptamine, and acetylcholine, is likewise increased, and so is sensitivity to calcium ions.^{2,3} Possibly an underlying influence on membrane permeability accounts for all these effects, but whatever the cause the fact remains that hyperthyroidism modifies sensitivity to a wide range of centrally and peripherally acting drugs. Particular caution in the choice of dosage in hyperthyroid patients would seem, therefore, to be appropriate.—We are, etc.,

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REFERENCES

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- ² Coville, P. F., and Telford, J. M., *Arch. exp. Path. Pharmacol.*, 1968, 259, 161.
- ³ Telford, J. M., *Int. Arch. Allergy*, 1968, in press.

Affective Arousal During E.C.T.

SIR,—In your leading article "Electric Convulsion Therapy" (25 May, p. 448) you raise the key question of what is the therapeutic mechanism of convulsion therapy, and you refer to the controversial issue of what produces post-E.C.T. memory loss.

In 1937, in my outpatient department at the Cornelia Hospital, Poole, during two parallel series of treatments using leptazol and intravenous picrotoxin it was observed that picrotoxin possessed an advantage as a convulsant agent. This was the intense affective arousal, which was consistently greater with picrotoxin than with other convulsants, and this may explain why chemically induced convulsions are sometimes more effective than E.C.T.

Your suggestion that memory changes are related less to the actual fit and more to the amount of current passed through certain parts of the brain is debatable, for there is extensive evidence that memory loss increases with the number of fits regardless of how they are induced. In the early years of convulsion therapy it was common practice to give outpatient treatments twice weekly, but

when treatments were reduced to one per week it was observed that memory defects were less severe.—I am, etc.,

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Equipment for Chest Aspiration

SIR,—In many thoracic units the equipment used for chest aspiration and intrathoracic pressure adjustment has remained unaltered for many years in spite of great improvement in available materials. Glass and metal syringes, often with ill-fitting pistons, taps which may be difficult to turn or else leak freely, and needles that become blocked or may lacerate an underlying lung are still the standard components of many "chest aspiration sets." Similarly, for pressure adjustments a Maxwell box is commonly used, and, excellent though this equipment was in its day, its limitations in terms of infection are obvious. Other equipment needs to be dismantled, sterilized, and reassembled each time it is used.

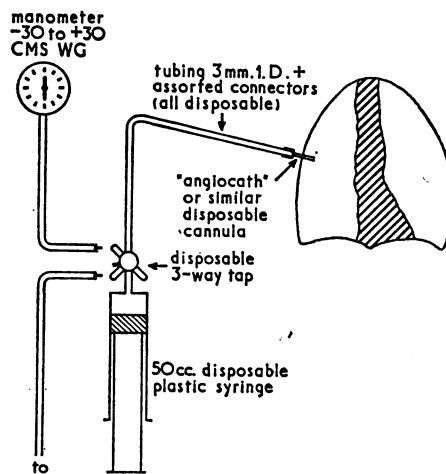


FIG. 1

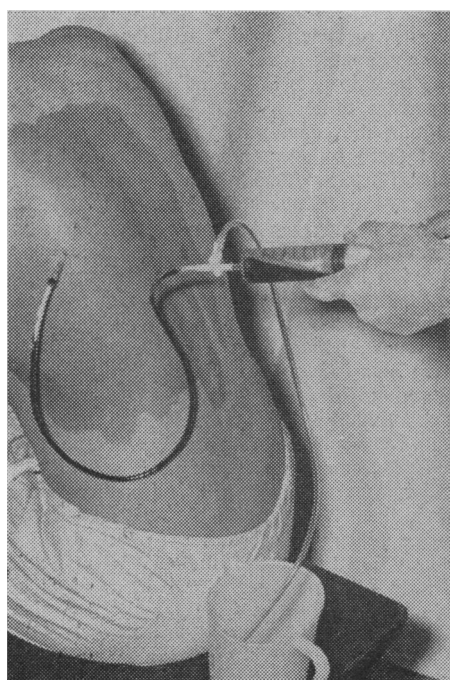


FIG. 2

For the past one and a half years we have used disposable plastic equipment for these purposes, and this has proved to be very convenient in use. No complications have occurred, and the results have been entirely satisfactory. With the exception of the manometer, the components are totally disposable, sterile, and pyrogen-free. The syringes and taps work easily and do not leak, while the fittings are always reliable. Plastic cannulae cannot tear a mobile lung, and tend to become blocked very much less readily than their metal counterparts owing to the nature of the material and its better surface finish.

The assembly is clearly shown in the diagram (Fig. 1). It consists of a disposable 50-ml. plastic syringe, a plastic three-way tap connected to a large-bore plastic cannula by 3-mm. internal diameter tube, and fittings.

A waste tube may be connected to the third outlet for aspiration, or a manometer for pressure adjustment as shown. The intervening manometric tubing is also disposable. All these components are readily available.

Chest aspiration is demonstrated in Fig. 2. The cannula is inserted into the pleural cavity and aspiration performed, using the tap to aspirate alternately from the chest and empty the syringe via the waste tube. The syringes are so leak-proof that accurate measurement of both air and fluid is possible.

A similar arrangement is used for pressure adjustment, a manometer with a range of -30 cm. to +30 cm. w.g. being connected to the tap outlet. In order to expel aspirated air from the syringe or to draw air into the syringe for insertion into the chest, the tap is moved to the closed position and the syringe temporarily disconnected from it.

We would like to thank Mr. T. F. Dee for the photographs shown here.

—We are, etc.,

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Postnatal Consultation

SIR,—I would like to discuss the postnatal visit of the nursing mother and child to the doctor's consulting-room—be it in hospital, private practice, or general practice.

It is my custom in our rural practice of three partners to ask the nursing mother and child to attend our own maternity-baby clinic (also attended by our local district midwives and nurses) about eight weeks after confinement, regardless of whether they were confined in hospital, general practice maternity unit, or patient's home. I will assume that most doctors agree that this consultation is desirable, but opinions differ considerably about what should be done or offered at this consultation.

May I outline my own routine (leaving aside the infant whose immunization schedule starts at this visit) and pertinent comments in the hope that this will stimulate further discussion.

(1) I ask the patient if there is any backache, vaginal discharge, dyspareunia, and whether the lochia has dried up. If the answers to these questions are satisfactory and if the past history and confinement were normal I do not as a routine carry out an internal pelvic examination.

My reluctance to perform this ritual pelvic examination is based on the belief that this