Current Practice

TODAY'S DRUGS

With the help of expert contributors we publish below notes on a selection of drugs in current use.

Triacetoxyanthracene

This topical preparation is marketed under the name of Exolan by Dermal Laboratories Limited.

Chemistry and Pharmacology

Fractionation of crude tars showed that the most effective substances in the treatment of psoriasis were high-boiling polycyclic hydroxy compounds. This group of compounds includes chrysarobin and dithranol—both of considerable value in the treatment of psoriasis. Further study of dithranol showed that it exists as the keto form 1,8-dihydroxy-9-anthrone (Fig. 1).

Dithranol may thus cause *burning* because of the reducing properties of the methylenic group at 10 position and *staining* because, if one of the hydroxyl groups is attached to skin, subsequent oxidation of the methylenic group leads to the formation of a quinone dye.

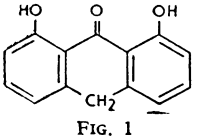

FIG. 1

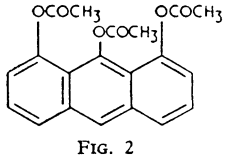

FIG. 2

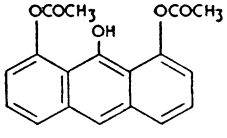

FIG. 3

Triacetoxyanthracene (Fig. 2) was synthesized in an attempt to avoid the burning and staining associated with the use of dithranol.

On hydrolysis an intermediate diacetyl compound (Fig. 3) is formed, and the manufacturers claim that this compound then fixes to receptor sites in psoriatic plaques and inhibits further development of psoriasis. Enzymes in the psoriatic plaques are said to produce the hydrolysis, and it is advised that water be placed on the plaques before the preparation is applied.

It is also suggested that on normal skin hydrolysis of the triacetoxyanthracene will not occur and that therefore the preparation acts only on areas of psoriasis.

Clinical Experience

The original preparation of triacetoxyanthracene was a 3% paste; this had disadvantages and a new preparation of 1% drug in cream base has been introduced. The drug is applied to moistened plaques of psoriatic skin, which are then covered with gauze.

Early studies were carried out, under close supervision, on both inpatients and outpatients. The results showed that though triacetoxyanthracene was not as effective as dithranol the incidence of burning and staining was much less—these side-effects are rare with the new product. Patients known to be sensitive to dithranol were not treated with the new drug, but in one case such a patient was given triacetoxyanthracene without any adverse reaction occurring.

Triacetoxyanthracene will produce a chemical conjunctivitis and must not be used near the eyes. Patients should be advised to wash their hands thoroughly after handling the drug, as in addition to the risk to the eyes it is, like dithranol, cathartic.

Conclusions

A reliable evaluation of triacetoxyanthracene must await the publication of further reports of controlled studies. The evidence available suggests that triacetoxyanthracene is a more acceptable preparation than dithranol because it is less likely to burn and stain. On the other hand it is slower in action and patients are less likely to respond to it than to dithranol.

Presentation

Triacetoxyanthracene is available as Exolan in a 3% paste and 1% cream.

The basic N.H.S. price of 70 g. of 3% paste is 22s. 6d. and of 50 g. of 1% cream is 17s. 6d.

NEW APPLIANCES

Trephine for Full-thickness Iliac-crest Biopsy

Dr. PAUL BYERS, Senior Lecturer in Morbid Anatomy, Institute of Orthopaedics, London, and Dr. ROGER SMITH, Senior Wellcome Research Fellow, Medical Unit, University College Hospital, London, write: Biopsy specimens for investigation of metabolic bone disease have customarily been taken from the iliac crest by inserting a trephine through its superior surface into the cancellous bone (Sacker and Nordin, 1954; Williams and Nicholson, 1963). Usually a pin is first driven into the crest to act as a guide for the trephine. In any event, the core of bone is freed by breaking it away from its remaining attachments with a movement of the trephine. The specimen so obtained is often fragmented and may have the further disadvantage, if a guide pin has been used, of having a hole through it. Bordier *et al.* (1965) conceived and developed the idea of taking specimens from the whole thickness of the ilium; their technique and apparatus enabled them to obtain large intact cores of bone.

An instrument basically the same as Bordier's was devised independently of any knowledge of it by Mr. C. W. Manning and made by Mr. Andrews, instrument-maker of the Royal National Orthopaedic Hospital, for the removal of broken screws from bone. This has now proved suitable for full-thickness iliac-crest biopsies, and is being used in the investigation of patients under the care of Professor C. E. Dent.

The apparatus consists of a sleeve through which a toothed trephine passes easily (Fig. 1). Both the sleeve and the trephine are made of stainless-steel tubing with a wall 0.1 cm. thick. The internal diameter of the sleeve is 0.83 cm. and that of the trephine 0.72 cm.