

is protected like a sprained ankle would be (by avoiding painful actions and encouraging painless action) the condition is self-righting in the time that tough structures take to heal (several months). I do not think that man has the ability to speed healing but he can slow it by exercises or stresses which repeat the sprain or by excessive rest leading to muscle wasting and joint stiffness. The more frequent the attack the less efficient the healing process, as after any other injury. An acute sprain often leads to muscle spasm, and anything that relieves muscle spasm will relieve the acute pain and leave only the much less severe pain from the sprain, which will heal in the usual way. Spasm may be relieved by heat, massage, manipulation, caudal anaesthesia, and systemic analgesics supplemented by sympathy and explanation. If the sprained structure is near one of the nerve roots some damage may be caused to a nerve root. This sprained structure will usually be the annulus of the intervertebral disc and the symptom from the nerve may be spontaneous pain, paraesthesiae, impaired feeling, or weakness. Referred pain alone may come from irritation of any of the structures. There are two groups of patients in particular who may require more energetic treatment—those who have a persisting prolapse of the nucleus pulposus and those who have persisting, troublesome lumbar instability.

What I am saying is: treat a back sprain like any other sprain and the patient will do well. Time spent on education is more use to most patients than time spent on active treatment, and to emphasize this point to patients in a busy clinic I give them an explanatory leaflet.—I am, etc.,

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Depigmentation from Corticosteroid

Sir,—I was interested to read Dr. A. E. Bloomfield's letter (23 September, p. 766) of localized depigmentation after subcutaneous injection of methylprednisolone for tennis elbow. I was surprised that the makers of the drug had not had any previous similar report. I have seen depigmentation on several occasions after injections of different corticosteroids in relatively fair-skinned as well as dark-skinned patients. I suspect the more powerful and longer-acting corticosteroids are more likely to produce this and other dystrophic side effects, and not being convinced of their supremacy over hydrocortisone for routine useage I use hydrocortisone as my standard preparation.—I am, etc.,

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Antibacterial Action of Bile

Sir,—The interesting paper by Drs. I. W. Percy-Robb and J. G. Collee on the antibacterial action of bile acids (30 September, p. 813) recalls to mind a case I investigated some years ago. He was a man in late middle age who presented with severe steatorrhoea and a considerably enlarged liver, biopsy of which showed advanced fatty change. On the assumption that the steatorrhoea might

be due to failure of production of bile salts he was given purified ox bile in substantial dosage as replacement therapy. The effect on the steatorrhoea was immediate and dramatic. On stopping the ox bile the steatorrhoea relapsed within days but completely remitted on restarting treatment. Subsequent barium studies showed multiple diverticula of the small bowel and the case passed out of my hands.

I gathered that it was later postulated, and in the light of this recent paper this was probably correct, that the response to the ox bile was due to its bacteriostatic effect on the intestinal flora. The potentialities of bile salts as a therapeutic agent in intestinal disorders of various kinds is worthy of further study.—I am, etc.,

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Dental Caries and Fluoridation

Sir,—Of course fluoride tablets can be bought over the chemist's counter. But how many parents and children can be relied on to continue the administration of these from birth to 13 years (at their own expense)? Dr. J. J. Murray rightly says that this regimen "demands a high degree of motivation and perseverance on the part of parent and child," and then advocates fluoridated drinking-water as the most effective method.

The present position is that in spite of governmental approval of fluoridation of drinking-water since 1962 fewer than 3% of children, it is believed, receive fluoride in their drinking-water in Britain. This arises from local opposition to such a measure and sometimes from water-engineering difficulties. In any event, children drink quite varying amounts of water.

Milk fluoridation (particularly in school milk) suggests itself since its dosage is precise, need only be voluntary, and can be combined with school dental inspection and advice. It is, of course, true that recent legislation makes such a course a little more difficult.—I am, etc.,

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Idoxuridine and Erythema Multiforme after Herpes Simplex

Sir,—Many attacks of herpes simplex infection are followed on each occasion by erythema multiforme seven to ten days later. Occasionally this may be the severe bullous type associated with oral, conjunctival, and genital involvement (Stevens-Johnson syndrome). Idoxuridine (5-iodo-2-deoxyuridine) has been shown to be clinically effective in herpes simplex infections by shortening the course of treated lesions¹⁻³ and often also preventing further recurrences. I therefore treated five patients with recurrent herpes simplex infection associated with erythema multiforme with topical idoxuridine to try to modify or prevent erythema multiforme. Four patients had recurrent perioral herpes while the fifth always developed lesions on the right cheek.

All five patients were treated with 5% idoxuridine in 100% dimethylsulphoxide³ (a powerful solvent and keratolytic substance) applied three-hourly for 48 hours. None of

the patients began treatment later than 12 hours after the onset of the herpes. In four patients the eruption appeared to be aborted, since no vesicles developed and complete clinical resolution occurred in two, three, five, and five days respectively. All four later developed erythema multiforme, the earliest nine days and the latest 14 days after the onset of the herpetic sore. Clinically in each case it was of similar severity to previous attacks, the rash being limited to the skin. The fifth patient derived no apparent benefit from the idoxuridine. His herpetic lesion healed in 14 days—one day after the onset of erythema multiforme, which was also of similar clinical severity to his one previous attack.

Four of the patients have since had further herpetic attacks, three periorally and the fourth on the right cheek. However, none of the recurrences were on exactly the same site as before. All four developed erythema multiforme again, in two cases after apparently successful arrest of the herpetic eruption at the prevesicular stage. The fifth patient, a 29-year-old Englishman, has had no further herpes simplex or erythema multiforme since the first treated attack a year ago. Previously over a period of 28 months he had had nine episodes of herpetic infection on exactly the same site adjacent to the right side of the mouth. Erythema multiforme had followed on each occasion.

These observations are uncontrolled but certain tentative conclusions may be drawn. Firstly, shortening the course of the herpetic lesion with idoxuridine (which presumably shortens the period of viral replication) seems to have no effect on the severity or duration of the erythema multiforme. Secondly, prevention of further herpes simplex infection seems to prevent erythema multiforme. This seemingly obvious point is important, since it is a well-known clinical fact that erythema multiforme may occur without overt herpes simplex in patients who more usually develop erythema multiforme only after clinically evident herpetic sores. Finally, it would seem that the patients most likely to obtain lasting cure of the herpes (and consequently the erythema multiforme) are those in whom the lesion recurs on exactly the same site each time.—I am, etc.,

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Postoperative Serum Enzyme Levels

Sir,—The interesting article by Dr. Sylvia M. Watkins and Mr. Adam Lewis (23 September, p. 733) confirms our findings in 1946 of raised serum levels of deaminating enzymes after operation in man, and lasting some days.¹ We showed the rise to be largely due to the anaesthetic employed, but it was increased in cases of shock and after surgical procedures. A year later we showed that muscle damage liberated these enzymes.² Dr. Watkins and Mr. Lewis attribute the muscle findings to Lawrence and Shukins³ to Watanabe and others⁴ and to Henley and others.⁵ Kellaway and I described the