formulation as blue-coloured, sweet-tasting tablets, and in the fact that it is prescribed for migraine, a relatively non-serious disease. Dixarit is probably regarded as a non-dangerous drug, being stored in places accessible to children, while, by contrast, the antihypertensive Catapres is treated with appropriate respect. We hope that this article will alert doctors prescribing Dixarit so that they can issue appropriate warnings to parents to keep this drug out of the reach of young children.

When the size of this problem became known, the manufacturers alerted pharmacists through a letter published in the Pharmaceutical Journal,2 and, more recently, a warning has been incorporated in the label on the standard package for Dixarit. As yet, we have detected no decrease in the rate of new cases, possibly because the new labels did not reach all retailers until late 1977. Probably, however, further measures will be needed, and safety packaging is being considered.

We thank those doctors who replied to our questionnaire and thus made possible this survey. We are also grateful to Dr J W Bell and Dr D Segal of Boehringer Ingelheim Ltd Bracknell, UK for their advice and co-operation.

Myositis and acute respiratory infection

Acute viral infections are commonly accompanied by myalgia. Electromyographic examinations in these cases have failed to show pathological findings.1 We describe one patient with positive EMG findings in association with acute viral infection.

Case report

The patient was a 31-year-old man, who one week after the onset of non-productive cough, mild fever, and tiredness developed coarse muscle twitching in his fingers. Within one week the twitches had affected several other muscles in the fingers and toes, and he also complained of paraesthesiae in the thenar eminences and mild muscle pains in the hands and feet. His respiratory symptoms subsided after two weeks and the mild fever after three weeks, although muscle twitches persisted for four months. No abnormal signs whatsoever were found on neurological examination. During the first three weeks after the onset of the disease the blood sedimentation rate was 2-4 mm in the first hour, and the blood leucocyte count 3-4 x 10^9/L. There was an insignificant rise in the serum antibody titre of adenoviruses (1/16-1/64) but no other changes in the tested viral antibody titres. The serum electrolytes and transaminase concentrations were normal. Three and four weeks after the start of the disease the serum creatine kinase concentrations were 140 and 41 U/L (at 37°C) respectively. Two months from the onset the blood sedimentation rate was 2 mm in first hour, and the blood leucocyte count 7-6 x 10^9/L. The ECG and chest x-ray appearances were normal. Electromyographic findings—The first EMG (taken three weeks after the initial symptoms) was abnormal. The proximal muscles of the arms, predominantly the biceps, showed insertional activity and abundant abnormal spontaneous activity as fibrillation potentials and positive sharp waves. Bizarre high-frequency potentials were also present. The motor unit action potentials were normal. A normal interference pattern was detectable with maximal effort. The distal muscles of the arms showed less spontaneous activity, and in the legs only the extensor digitorum brevis showed a few fibrillation potentials. The motor conduction velocities in the median and peroneal nerves were normal, and no fasciculation potentials were found. On repeat EMG examination one month later the pathological findings were fewer: prolonged insertion activity persisted, but spontaneous activity had diminished appreciably. The motor unit action potentials remained normal.

Comment

This patient's illness was considered to be an atypical myositis associated with viral infection, although the virus was not identified. In 1957 Lundberg1 described an epidemic of 74 cases of an influenza-like syndrome which was followed in three to five days by severe myalgia of both calves, which remitted spontaneously within one week. The same type of myositis has been reported as being caused by influenza B virus,2 A2 Hong Kong virus,3 and influenza A virus.4 Nearly all of these patients have been children. The present case differed clinically in the course of the illness: at the time of the patient's illness, moreover, there was no epidemic of influenza in Finland.

The results of EMG examination were normal in the three cases examined by Lundberg.1 In the present case the findings were clearly abnormal, although the presence of normal motor unit potentials made them different from those classically described in myositis, most probably because of the acute nature of the disease. No EMG findings of this kind have been reported in conjunction with acute respiratory infection. Hence we believe that the muscular symptoms which accompany acute viral respiratory infection may be partly attributable to inflammatory irritation of the muscle.

Digoxin prescribing: an evaluation of clinical judgment

When prescribing digoxin most doctors rely on intuition. We report the variation in mean steady state serum digoxin concentration after intuitive dosing in a large group of patients. Comparison is made with the outcome expected had other prescribing methods been used.

Patients, methods, and results

A total of 129 patients in the Manchester region (67 men, 62 women; mean ± SD age 59 ± 12 years, weight 62 ± 13 kg, creatinine clearance 60 ± 23 ml/min) receiving maintenance digoxin were studied. Of these, 110 were outpatients and 19 were acute medical admissions. The daily dose (0.2-7 ± 0.1 mg) had been selected previously by a general practitioner or a hospital doctor. We prescribed this as Lanoxin (Wellcome Medical Division Ltd, UK and Ireland Region), to be taken at 1000 and made every effort to encourage compliance. After allowing three weeks to attain "steady state" conditions blood samples for digoxin radioimmunoassay were taken on an average of four visits per patient. Results were expressed as estimated mean steady state concentration.

The above results were compared with those expected had alternative prescribing methods been used. The alternatives considered were a fixed daily dose of 0.25 mg (method A); a one-compartment model12,13 whose predictive value ranked higher than that of other pharmacokinetic models studied14; and the score shown in the figure (method C). The expected concentrations were calculated on the assumption that a proportional relationship exists between the dose given to an individual and the digoxin concentration he achieves. Excluded from the comparison were five patients who had not been receiving Lanoxin and ten who were found to be intolerant of digoxin at serum concentrations below 1-28 nmol/l (1-00 μg/l).

The mean serum digoxin concentration achieved by intuitive dosing (1-94 nmol/l (1-5 μg/l)) was similar to that expected for method A (2-05 nmol/l (1-6 μg/l)), method B (1-73 nmol/l (1-4 μg/l)), and method C (1-78 nmol/l (1-4 μg/l)). The variance in the logarithm of the concentrations achieved, 4-62 x 10^-4 (a log2 transformation being used to approach a normal distribution), was not different (P > 0.07) from that expected using A, B, 4-33 x 10^-2, but differed (P < 0.0001) from that expected using B, 2-38 x