during her stay in hospital. A urinary infection occurred on the seventh day after admission, the causal organism being *E. coli*. This was treated with chloramphenicol, but the drug had to be discontinued within two days because of persistent vomiting, and the infection cleared up with alkaline diuretics.

As the state of collapse improved the blood pressure became recordable eight hours after admission, and the skin showed definite types of rash. Urticaria was present on the tense swollen limbs, and there was a purpuric reaction of the trunk. On the second day after admission jaundice became apparent clinically, and this remained until two weeks before the patient was discharged from hospital. The serum bilirubin rose from 6.1 mg. per 100 ml. on the day after admission to 15.9 mg. per 100 ml. four weeks after admission, thereafter gradually returning to normal (see Chart). There was some renal damage, and the urine during

Chart showing the haemoglobin, serum bilirubin, and thymol turbidity.

the first seven days contained albumin and tubular casts. The blood urea was 152 mg. per 100 ml. on the day after admission, and it returned to normal three weeks later. The mental dullness and, at times, confusion persisted for about two weeks.

The urine was tested on the day after admission, and an ordinary specimen was found to contain 0.07 mg. of arsenic per 100 ml., whereas a catheter specimen contained less than 0.005 mg. per 100 ml.

During the first week the urine was examined for *Leptospira icterohaemorrhagiae* with negative results; subsequently blood agglutinations were carried out, and these also proved negative.

The patient made steady progress and was discharged on full diet. The liver-function tests were normal, the blood picture was satisfactory, and the test for 17-ketosteroids was within normal limits.

The biochemical results (see Chart) indicate (a) an initial haemoconcentration, followed by a gross anaemia, which slowly but completely recovered; and (b) serum bilirubin and thymol turbidity indicative of a congested liver, the congestion persisting and even worsening during the first four weeks, thereafter returning to normal.

COMMENT

The diagnostic problem in this case was the nature of the widespread reaction. Clinical conditions, somewhat similar to the one described here, have not infrequently been encountered during the administration of arsenical compounds, both trivalent and pentavalent, orally and parenterally.

The generalized skin reactions occurring during treatment with acetarsol pessaries are indicative of absorption from the vagina. In this case the skin, mucous membranes, liver, and kidneys were all involved in an anaphylactoid reaction.

Although no case of its kind has been recorded in the literature, one can at least compare this severe reaction to a substance which can be absorbed from the vaginal epithelium into the blood stream, with a similar reaction to this substance when administered by injection or taken orally.

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Rare Complication of Phenytoin Sodium Treatment

The treatment of major epilepsy with phenytoin sodium is now well established and has proved efficacious in many cases. The toxic effects so far described in the comparatively voluminous literature include "dizziness, nausea, and skin rashes. Other reactions include tremors, fever, vomiting, blurring of vision, ataxia, mental confusion and hallucinations" (Martindale, 1952). The two cases described here are of clinical interest, as each exhibited a transient hemiplegia which disappeared on withdrawal of the drug. F. MacDonald (1956, personal communication) says that such a complication has hitherto been unknown, and case histories may be of interest in view of the dramatic incidence of the condition observed in our patients.

CASE REPORTS

Case 1.—The patient was an imbecile aged 19 who was irritable, violent, and uncontrollable, with a liability to recurrent status epilepticus. He received phenytoin sodium ("epanutin"), 1½ gr. (0.1 g.) twice daily, for six months, during which time the incidence of seizures was considerably reduced. On April 14, 1939, he had an apparent cerebral "catastrophe" with the following signs: temperature 102° F. (38.9° C.), crossed hemiplegia with left facial paresis, left pupil dilated, increased knee- and ankle-jerks on right side, and extensor plantar response on the same side, B.P. 138/76. He had complete loss of power and movement on the right side. He did not exhibit confusion or any other psychiatric symptoms. The drug was immediately withdrawn, after which complete recovery occurred within a period of 24 to 36 hours.

Case 2.—A feeble-minded man aged 20 who had occasional major fits had had phenytoin sodium treatment since 1953, receiving 1½ gr. (0.1 g.) twice daily. On September 15, 1956, he was noted as "confused" and complained of feeling unwell. The following day he developed a total left-sided hemiplegia with complete loss of power, increased knee- and ankle-jerks, extensor plantar response, and a mild facial paresis of the same side. Both pupils were equal and reacted to light and accommodation. B.P. 130/70. The drug was immediately stopped, and in the late evening of the same day some improvement was observed. Twenty-four hours later some confusion persisted, but he had made a complete physical recovery, with a total absence of neurological signs. After a further 24 hours he was in his usual mental condition, although he had two major seizures during this period.

COMMENT

The value of recording these cases is obvious, especially as phenytoin sodium has been found valuable in the treatment of major epilepsy both in hospital and in general practice. We would suggest that in all cases with similar neurological involvement immediate withdrawal of the drug may avoid serious physical or psychiatric consequences.

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