where he gave no cause for anxiety until on the morning of October 4, when the paralysis had spread rapidly to involve both arms and the diaphragm. He was put in an artificial lung, but died in a few hours.

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A Case of Drug Eruption Induced by Hexamethonium Bromide

Of the skin reactions caused by therapeutic agents those due to the intake of iodides and bromides have long been recognized and are of fairly common occurrence.

With the recent introduction of the hexamethonium halides as blocking agents of the autonomic ganglia as described by Paton and Zaimis (1948a, 1948b, 1949), Barlow and Ing (1948a, 1948b), and Balaban *et al.* (1949), and hence their application in medicine as therapeutic measures in hypertension (Turner, 1950; Campbell and Robertson, 1950) and peptic ulcer (Kay and Smith, 1950a, 1950b), cases of halide eruption were not entirely unexpected. So far as we can ascertain, this is the first of such cases to be described.

Case Report

A housewife aged 45 was known to be a case of hypertension and was admitted to hospital on September 6, 1950, for further investigation. No cause was found for the hypertension, and it was labelled essential in type. She seemed a suitable subject for trial with hexamethonium

bromide. A test dose of 100 mg. by intramuscular injection was given on September 19, and this was followed by a satisfactory fall in both systolic and diastolic blood pressure without any toxic effects. It was decided to continue treatment with the usual oral method, and the dose

was increased gradually until September 29, when she received 1 g. three times a day. This was considered to be her maintenance dose. On October 4 a few tiny papules, which had not been present previously, were noted on the left naso-labial region. These were thought to be ? rosaceal in type and were treated with calamine lotion. The eruption became no worse and the patient was discharged home on October 7, with instructions to continue the same dosage—that is, 1 g. three times a day. This she did until October 11, when she reported to hospital because of a sudden exacerbation of the rash on her face. The presence of discrete papulo-pustules together with a vegetative plaque (see photograph) left little doubt about the diagnosis, and this was readily confirmed by one of us (J.S.). The administration of the drug was stopped.

The total dosage of hexamethonium bromide up to the appearance of the papules was 34,600 mg. spaced over a period of 16 days. In all, the patient received 53,600 mg. over a period of 23 days.

The eruption cleared up perfectly within a few weeks of cessation of intake of the drug.

Comment

In the treatment of hypertension it is now generally accepted that the intake of sodium by the patient should be restricted (Ucko, 1950). In this case no table salt was added by the patient to her diet, and foods with a high sodium content were avoided. This probably reduced the sodium content of her diet to approximately 3 g. a day.

As recommended by Ucko (1950) and others, drastic curtailment of the sodium (usually as sodium chloride) to below 0.5 g. a day is probably essential if hypertensive signs and symptoms are to be alleviated. It would appear that simultaneous administration of the bromide or iodide salts of hexamethonium with this severe curtailment of sodium intake would theoretically induce halide intoxication, as it is now established that the halides can replace each other in their linkage with sodium and potassium (Wile, Wright, and Smith, 1922).

It would seem, therefore, to be a wise precaution, when treating hypertension with hexamethonium bromide or iodide, not to limit sodium chloride intake to a low level.

We are indebted to Dr. Douglas K. Adams, in whose wards this patient was treated, for permission to publish this case and for his advice and criticism.

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