Angioneurotic oedema and urticaria following hydrocortisone – a further case

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Summary

It is still not commonly realized that immediate hypersensitivity reactions to hydrocortisone can occur. A rare case is reported which illustrates the need for caution when using this drug in atopic subjects. Ideally, parenteral hydrocortisone should only be used where facilities for resuscitation are available.

Introduction

Three reports of immediate hypersensitivity reactions following parenteral hydrocortisone have recently appeared in the literature (Mendellsohn, Meltzer and Hamburger, 1974; Partridge and Gibson, 1978; Hayhurst, Braude and Benatar, 1978). These described an exacerbation of bronchospasm in asthmatic patients with or without urticaria and angioneurotic oedema. A further case is now reported where transient angioneurotic oedema and urticaria were precipitated by parenteral hydrocortisone without a worsening of bronchospasm. This report further emphasizes the need for caution when using parenteral hydrocortisone in atopic individuals.

Case report

The patient was a 31-year-old opiate addict, with a 16-yr history of asthma, who recently (1979) came to the surgery complaining of increasing bronchospasm for 2 days, associated with drug withdrawal. He was on no treatment for his asthma, having discontinued inhaled salbutamol 2 years before. He had never been admitted to hospital for asthma. On examination, he was mildly dyspnoeic at rest but not cyanosed. His pulse was 105/min; BP 110/70 mmHg with 10 mmHg pulsus paradoxus. There were loud expiratory wheezes in both lung fields. He refused both i.v. therapy and referral to the local casualty department. He was therefore given i.m. hydrocortisone sodium succinate (Efcortelan, Glaxo) 200 mg. Within 10 min he developed a generalized urticarial rash and oedema of the face and lips. There was no oedema of the tongue or larynx, and his bronchospasm was unaffected. No additional treatment was given and he then accepted referral to the local casualty department. On arrival, both the rash and oedema were improving

and, within one hr of the injection, had resolved completely. He was discharged and has not been seen since.

Discussion

There have been several reports (reviewed by Kounis, 1976) of delayed adverse reactions to intra-articular corticosteroids. However, it was not until 1974 that Mendellsohn *et al.* reported the first case of immediate hypersensitivity (asthma, urticaria, and angio-oedema) following parenteral corticosteroids. Since then, 2 further reports have appeared (Partridge and Gibson, 1978; Hayhurst *et al.* 1978). All 5 patients reported were asthmatics whose bronchospasm was worse following i.v. hydrocortisone or methylprednisolone. Ventilation was required in 3. In 2 cases there was associated urticaria and angioneurotic oedema. In the present patient, urticaria and angioneurotic oedema were not accompanied by increased bronchospasm.

The mechanism of the reaction is not understood. However, separate challenge tests carried out by Mendellsohn on his patient suggest that the reaction is to the steroid rather than to the diluent.

It is still not generally appreciated that immediate hypersensitivity reactions may follow the parenteral use of steroids in asthmatics. This case further emphasizes the existence of this problem. The authors support Partridge and Gibson's (1978) recommendation that i.v. or i.m. hydrocortisone preparations should only be given when essential, and where facilities for resuscitation are available.

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