Hypersensitivity reactions due to tetracyclines

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SEVERE HYPERSENSITIVITY reactions due to tetracyclines are almost unknown. I doubt if there was ever a case reported. Mild reactions like generalised maculo-papular rash and urticaria are well documented; in fact, I came across two cases belonging to this category in the 2½ years of private practice. However, recently I encountered a severe case of hypersensitivity reaction due to oxytetracycline which I feel is worth reporting.

Case Report

The patient, Mrs. D. T. S., aged 49, a housewife, is a known diabetic and has been on diabenese 1 tablet daily and dietary control. She has a mild lower motor neuron left facial nerve palsy resulting from an attack of Bell's Palsy about 5 years ago. Because of this, she has frequent exposure conjunctivitis of her left eye.

She came to see me for the first time in the afternoon of May 15, 1972 for her painful left conjunctivitis. On examination during this visit, apart from her left conjunctivitis, left facial paresis and the presence of sugar^{+++} in her urine, she was an obese woman apparently enjoying good health. Her BP was 120/80 and she was afebrile.

For her exposure conjunctivitis and secondary infection, she was given 150 mg oxytetracycline intramuscularly, to be followed by oral oxytetracycline and chloramphenicol eyedrops.

Within about one hour, the patient returned complaining that half an hour after the injection, she felt a tightening sensation of her face and body. This was soon followed by swelling of the face and the appearance of generalised urticaria. In addition, she also complained of a pounding headache, palpitations and an oppressive discomfort in the chest. On examination then, her face was swollen with angioneurotic oedema, her body was covered with fine urticarial rash, her skin was flushed and hot, her temperature was 103.6°F, her

pulse rate was 70/min. regular but pounding, so was her apex beat, and her BP at this time was 240/140. The patient looked sick.

As an medical emergency, 10mg chlorpheniramine meleate was given intramuscularly, followed about 5 minutes later by 100mg hydrocortisone sodium succinate also intramuscularly, when the patient did not show improvement (BP now was 260/140). The response was almost miraculous.

Within about 15 minutes, her BP came down to 180/100 and her skin less flushed, T=100°F. In another 15 minutes the urticarial rash had started to subside, the headache lessened, and she felt and looked better. The next day when I saw the patient again after about 12 hours, she had completely recovered. Her BP was 120/80.

Discussion

The combination of generalised urticaria, flushing, pyrexia and acute hypertensive crisis is most unusual for a hypersensitivity reaction. The only plausible explanation is that nor-adrenaline or adrenaline or both are released in addition to the usual chemicals released during a normal hypersensitivity reaction. Normally adrenaline is usually given in addition to the antihistamine to counteract the vasodilating effect of histamine. But in this case, because of the acute hypertensive crisis adrenaline was contraindicated. As might have been noted, a hypotensive agent was not used. In a moment of urgent decision, hydrocortisone was the drug of choice because of its overall counteracting effect. However, if the hypertension had persisted, a parenteral hypotensive agent would have been used.

Conclusion

This a case report of a severe and most unsual hypersensitivity reaction due to oxytetracycline, and its sequelae, and its response to emergency medical treatment.