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Case report

Pseudo-tetanus following trifluoperazine

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The risk of mistaking a dystonic reaction following trifluoperazine for tetanus is well recognised.[1,2] In 1979, Stoddart[3] reported six cases of pseudo-tetanus, "a syndrome which is produced by a variety of non-clostridial factors". Trifluoperazine was implicated in one of these cases. We report a similar instance in which circumstantial evidence supported such a misdiagnosis.

CASE HISTORY

A 22-year-old man presented to the casualty department with "locking" of his right great toe in dorsiflexion, and of his jaw. One week previously, he had complained of nausea and a sore throat for which his general practitioner had prescribed a course of oral penicillin. He also suffered from intermittent pain arising from a wisdom tooth, and he had been involved in a fight four days previously in which he had sustained an abrasion to his right foot and a human bite to his right hand. He had received no anti-tetanus immunisation for more than ten years. It was felt that tetanus (albeit atypical or local) might account for these muscular spasms at presentation. Tetanus immune globulin (250iu) was administered intramuscularly and benzylpenicillin (600mg six hourly) intravenously. He was transferred to the intensive care unit and sedated using midazolam (2·5mg intravenously) and chlorpromazine (25mg intramuscularly). Within eight hours all muscular spasm had disappeared. Only then did he volunteer that he had taken six doses of trifluoperazine 5mg during the previous 36 hours, which had been prescribed by his general practitioner for nausea. There was no recurrence of his symptoms and he was discharged from hospital two days later.

COMMENT

Acute dystonic reactions are usually characterised by sudden intermittent episodes of uncontrolled movement of the head and upper body. Trismus is less common but well recognised. Trifluoperazine is a phenothiazine derivative with a piperazine side chain, a group of drugs well known to produce such reactions.[4] In this case several features were worthy of note. The history of a recent abrasion in the absence of tetanus immunisation supported the misdiagnosis of atypical

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tetanus. Children and young adults are most susceptible to drug induced acute dystonia; the higher risk may be explained by an age related fall in the number of dopamine 2 (D2) receptors in the substantia gelatinosa.[5] Thirdly, and typically, the reaction took place within 36 hours of taking the first dose of the responsible drug.[6] Midazolam and chlorpromazine were used as sedatives, and symptoms resolved within eight hours. Benztropine is recommended as the initial pharmacological treatment of such reactions, but Stoddart[3] pointed out that diazepam may be a satisfactory alternative. A non-specific benzodiazepine effect (of midazolam) may have been beneficial in this case. In view of its antidopaminergic properties chlorpromazine must be contraindicated in such circumstances, and it has been implicated as a precipitator of a tetanus-like syndrome. Chlorpromazine has been used in the treatment of true tetanus but it is not ideal in those with autonomic manifestations of the disease.[7] The potential danger of misdiagnosing a drug induced acute dystonia as tetanus exists, but a complete drug history and an awareness of the danger should prevent such an error.

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