Unexpected outcome (positive or negative) including adverse drug reactions

Accidental topical exposure to an anticholinergic mimicking an intracranial drug

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Topical hyoscine hydrobromide cross-contamination can occur between individuals and the anticholinergic effects of hyoscine can lead to diagnostic confusion.

BACKGROUND

The case highlights the ease with which person to person contamination of topical hyoscine hydrobromide can occur. Patients being prescribed this treatment should be informed of this potential side effect.

CASE PRESENTATION

A 30-year-old otherwise healthy man presented to casualty with blurred and double vision of 1 day's duration.

While working at his computer he had noticed marked double vision and subsequently on looking in the mirror he noted that the left pupil was dilated compared to the right. He had played rugby 2 days previously and, although he could not recollect any specific blow to the head and had no headache, he suspected he might have an intracranial injury.

On examination he was afebrile and vital signs were normal. Funduscopy was also normal, there were no other signs of raised intracranial pressure and his cranial nerves were also normal.

After discussion with his partner, it turned out that she was in the habit of using topical hyoscine (scopolamine) prescribed for her localised forehead hyperhidrosis. On the same morning, while applying it, she had spilt the hyoscine solution into the same bathroom washbasin subsequently used by the patient. It seemed highly likely that he had inadvertently transferred traces of the hyoscine to his left eye while shaving and this was sufficient to cause him to experience mydriasis, cycloplegia and paralysis of accommodation.

OUTCOME AND FOLLOW-UP

Following examination in casualty the patient was reassured and discharged. His ocular symptoms persisted for the remainder of the day. The following day his vision was normal.

DISCUSSION

Hyoscine hydrobromide is an alkaloid derived from the nightshade family of plants. It is a potent competitive

antagonist of acetylcholine at the muscarinic receptor. It readily penetrates the transdermal barrier and is used in a transdermal delivery system for treatment of motion sickness. Topical hyoscine 600 µg per ml causes effective, albeit temporary, local anhidrosis although this is an unlicensed indication. Iontophoretic application of anticholinergics, such as glycopyrronium, is widely used for palmar and plantar hyperhidrosis and patients and healthcare personnel should be warned about accidental contamination of the eyes, which although harmless in the long-term can cause temporary visual disturbance and lead to diagnostic confusion. This case also highlights the ease with which person to person contamination can occur with hyoscine hydrobromide and that patients prescribed this treatment should be informed of this potential side effect.

Learning points

- ▶ Topical hyoscine hydrobromide can be transferred from person to person with relative ease.
- ▶ Patients who are taking topical hyoscine hydrobromide should be warned about the possibility of accidental contamination of the eyes.
- ▶ Patients who present with symptoms of visual disturbance should be asked whether they, or people with whom they are in close contact, are taking topical hyoscine hydrobromide.

Competing interests None.

Patient consent Obtained.

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