

Drug points

Diabetes insipidus induced by ofloxacin

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Nephrogenic diabetes insipidus occurs with agents such as lithium, methoxyfluorane, vitamin D, and demeclocycline.^{1 2} We report a case of diabetes insipidus induced by ofloxacin (Tarivid; Hoescht Marion Roussel).

A 25 year old man was admitted with fever, a dry cough, and dyspnoea of three days' duration. He had had an influenza-like illness in the preceding week, and his doctor had prescribed ampicillin 2 g daily for three days. On examination he was febrile, toxic, dyspnoeic, and had poor oral hygiene. His pulse was 130 beats/min, blood pressure 110/70 mm Hg, and respiration 35 breaths/min. A chest examination showed signs of bilateral lobar consolidation of the mid zones. His total white blood cell count was $20 \times 10^9/l$ with 90% polymorphs, the results of blood biochemistry were normal, and he had negative results for hepatitis B surface antigen, HIV-1, and HIV-2. A chest x ray film showed bilateral lobar infiltrates, no pleural reaction, and a normal cardiac silhouette. We diagnosed "typical" bilateral lobar pneumonia acquired in the community after influenza. He was treated with multiple antibiotics as sputum and relevant bacteriology results could not be obtained: penicillin G 2 million units four times daily, gentamicin 60 mg every eight hours, clarithromycin 500 mg twice daily, and metronidazole 400 mg every eight hours. He was also given a mucolytic, intravenous fluids, vitamins, and intranasal oxygen.

On the third day after admission his response was poor and he was given ofloxacin 200 mg twice daily. He seemed to improve, but on the fifth day he developed polyuria (>20 l/day) with excessive thirst (urine 264

mOsmol/kg with urinary sodium excretion 286 mmol/day). Ofloxacin induced diabetes insipidus was suspected, and the drug was stopped. His urine volume gradually decreased and his thirst normalised within 36 hours while the other drugs were continued. As he continued to improve we rechallenged him with ofloxacin 400 mg daily. Again his urine production increased in association with polydipsia. Ofloxacin was stopped. A chest x ray film showed resolution of the pneumonic consolidation. Multiple cavity formation bilaterally suggested infection with *Staphylococcus aureus*. He was given ceftriazone 2 g daily and cloxacillin 500 mg four times daily. His symptoms resolved after two weeks.

That the diabetes insipidus recurred when he was rechallenged with ofloxacin and resolved after the drug was stopped while other treatment was continued suggests a causal relation. We could find no report on ofloxacin induced diabetes insipidus in the published literature or from the product monograph. We reported this side effect to the manufacturer and the Central Drug Standard Control Organisation (west zone), both of which were unaware of any such report. Similarly, the other drugs the patient took were unlikely to interact to cause a diabetes insipidus-like syndrome. The mechanism of this interaction is not clear; it could be similar to that of lithium or demeclocycline, which interferes with the action of antidiuretic hormone on the collecting ducts.^{1 2}

Competing interests: None declared.

- 1 Moses AM, Streeten DHP. Disorders of the neurohypophysis. In: Isselbacher KJ, Braunwald E, Wilson JD, eds. *Harrison's principles of internal medicine*, 13th ed. New York: McGraw-Hill, 1994:1921-30.
- 2 Forrest JN Jr, Cox IM, Hong C, Morrison G, Bia M, Singer I. Superiority of demeclocycline over lithium in the treatment of chronic syndrome of inappropriate secretion of antidiuretic hormone. *N Engl J Med* 1978;298:173-7.

The skills it takes

The practice of medicine can take all forms, and the diversity and adaptability that we sometimes require continue to amaze and intrigue me. In my short career I have had strange requests and patients, from seeing a Sioux child who had been shot by an arrow and delivering babies in hospital car parks to learning about and adapting to the world of molecular biology. None prepared me for a request that I received while working as a resident medical officer at a private hospital during the present foot and mouth outbreak.

An embarrassed nurse knocked on the door of my on call room and asked whether I had any shepherding experience. She had been looking out of the window and noticed that the lambs in the neighbouring field had escaped through the fence. Concerned, she had called reception to ask for the telephone number of the local farmer, so that she could inform him of his escapees. "Don't worry," replied the receptionist, "the RMO will do it, he's done it before." Indeed, the week before, she had found me in the car park ushering a lamb back into the field after a breakout. There were bemused patients peering

from the window as their resident doctor was seen patrolling the fence and chasing the lambs back in to the field.

I bumped into one of the professors in the corridor later and told him of my exploits; he laughed and replied, "I hope you didn't get caught. We can't have you being arrested for illegally transporting livestock."

I can now add shepherd to the many skills that I have had to call on in my practice as a doctor.

James Clover *clinical research fellow, Ratby, Leicestershire*

We welcome articles up to 600 words on topics such as *A memorable patient*, *A paper that changed my practice*, *My most unfortunate mistake*, or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.