

left the casualty department after being refused an injection, and a 38 year old woman reported no pain relief after diclofenac and was given pethidine. She discharged herself and did not attend follow up; results of urography were normal.

Comment

Diclofenac suppositories provide potent, specific analgesia in renal colic. They are superior to pethidine, their effect starting at a similar time but lasting longer. In most cases the entire episode of colic was covered by a single dose. All nursing staff can administer diclofenac as it is not a controlled drug, and this is of practical importance in a busy ward.

The fact that diclofenac can be self administered and is not an opiate makes it a useful drug in general practice, especially for patients with recurrent renal colic. Many doctors would be unhappy to leave a

quantity of pethidine tablets in some homes. Increasing numbers of opiate abusers present to casualty departments with symptoms mimicking renal and biliary colic, and a non-euphoric suppository is an effective way of identifying many. We believe that diclofenac suppositories should be considered as the first line treatment of renal colic, both in hospital and in general practice.

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† (Accepted 25 August 1989)

"Auditory hallucinations" from a hearing aid?

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Hearing aids sometimes pick up radiowaves and emit music. This occurred in a patient who was already suffering from auditory hallucinations.

Case report

A 96 year old woman was referred to the department of geriatric medicine because of repeated falls. She suffered from presbycusis and wore a postaural hearing aid. She complained of hearing voices and music. She was overtly depressed and had some paranoid ideas, but there was no evidence of cognitive impairment.

For the next six months auditory hallucinations caused her great distress which was not alleviated by therapeutic doses of antidepressant drugs and tranquilisers. An electroencephalogram showed bilateral temporal lobe spikes consistent with temporal lobe epilepsy. She was given carbamazepine 100 mg twice a day, which reduced the frequency of the hallucinations but did not obliterate them. Two years later she was in hospital with biliary colic, and her hearing aid, which was on the bedside locker, emitted a broadcast from the local radio station. The hearing aid was replaced and though she still has auditory hallucinations they are less severe.

Comment

Hearing aids are the mainstay of treatment for presbycusis.¹ Two types of electronic hearing aids are available on the NHS: postaural aids ("behind the ear" aids) and body worn aids. All of the first type have the conventional O-T-M switch. O=off, M=microphone or on, and T=telecoil. The last is used when in public buildings, such as churches, theatres, and airports, that have been fitted with a loop system. Induction loop systems allow selective transmission of voices to the listener without background noise interfering. Television sets and telephones can also be fitted with loop systems to help diminish background noise.

As the patient's hearing aid was replaced we could not verify the source of the unwanted signal. Several other patients, however, reported picking up unexpected signals, usually from nearby ambulances but

occasionally music. Generally, their hearing aids were on the T setting and probably picked up signals from the hospital radio transmission system. Once inductive pick up occurred while the aid was on the M setting. There was corrosion across the M and T contacts producing a connection of sorts. The signal picked up by the telecoil may have been rectified or demodulated by the metallic salts and then amplified in the normal way. Therefore, even on the M setting an aid might pick up an induced signal and amplify this along with the microphone input signal. The hospital where our patient resided had no radio transmission system, but within a 10 mile radius there were three moderately powerful radio transmitters, two of which broadcast in the medium wave band. These transmitters were amplitude modulated and may have been the source of the music heard coming from the patient's hearing aid.

Our patient had auditory hallucinations due to temporal lobe epilepsy which, coupled with severe deafness, caused depression. Eastwood *et al* reported that about three fifths of their elderly patients with severe hearing impairment had a concurrent psychiatric disorder the commonest of which was paraphrenia.² A relation between deafness and depression has been reported in another study.³ The "hallucinations" from her hearing aid obviously made our patient's condition worse. We think that this happens more often than is reported. This potential problem is not mentioned in publications for patients.^{4,5} Hearing aids should be checked regularly, especially when patients complain of "auditory hallucinations."

We thank Mrs J Cowan for secretarial help.

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- 5 Department of Health and Social Security. *How to use your hearing aid*. London: HMSO, 1988.

(Accepted 11 September 1989)

Correction

Declining incidence of AIDS dementia complex after introduction of zidovudine treatment

An editorial error occurred in this paper by Dr Peter Portegies and others (30 September, p 819). The last sentence of the second paragraph in the results section should read: "Thus significantly more patients who were not taking zidovudine developed the AIDS dementia complex (38/107, 36%) compared with those who were (2/89, 2.3% [not 23%]) (p<0.00001)."

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Br Med J 1989;299:1141