The mode of this patient’s infection is uncertain. We think that in walking barefoot she may have trodden in contaminated faeces from an infected person or pet. For a local dog or cat to be chronically infected it would have to have been imported from an endemic area, but larvae might persist and develop in warm, moist soil even in an English summer. It is unlikely that larvae would exist in the soil on contaminated vegetables imported from warmer climes. Orogenital transmission of strongyloides has been suggested, but this patient denied any sexual contact.

We thank the Department of Medical Helminthology, School of Hygiene and Tropical Medicine, London, for confirming the diagnosis and Professor Grove of the University of Western Australia for his advice.


(Accepted 12 December 1986)

Queen’s Medical Centre, Nottingham NG7 2UH
VERONICA SPROTTE, MB, MRCP, senior house officer
C D SELBY, BM, MBChB, medical registrar
PURVIN ISPANIHI, MB, FRCPATH, consultant microbiologist
P T JOGHILL, MD, FRCP, consultant physician
Correspondence to: Dr Toghill.

Infection by airborne Chlamydia trachomatis in a dentist cured with rifampicin after failures with tetracycline and doxycycline

Up to now the transmission of Chlamydia trachomatis, a noted pathogen of the urogenital and conjunctival tracts, has been thought to be by direct contact or exposure to infected mucous or secretions, as may occur during sexual contact. Airborne transmission of C trachomatis, the usual mode of transmission of Chlamydia psittaci infections, has been documented in only two cases of laboratory infection by L1 and L2 strains, which cause lymphogranuloma venereum.1

We describe three cases of C trachomatis infection resistant to commonly used antibiotics; in one airborne transmission was probable.

Case reports

Case 1—In March 1984 a 29 year old doctor began to have ocular burning and pruritus with moderate conjunctival secretion, especially in the morning. Keratoconjunctivitis of a probable viral nature was diagnosed but tests for viruses and bacteria gave negative results. Symptoms persisted with alternating improvement and worsening until January 1985, when he noticed reddening of the glans penis and pruritus of the foreskin. C trachomatis was isolated from the pharynx, conjunctiva, and urethra. Tetracycline given by mouth (500 mg four times daily) and topically into the eyes for 10 days was of no avail, and doxycycline 200 mg by mouth daily for 15 days also gave poor results. Rifampicin (900 mg daily for 15 days) proved effective.

Case 2—In January 1985 a 27 year old doctor (the wife of case 1) began to have conjunctival burning and reddening, soon followed by vaginal itching, dyspareunia, and leukorrhoea. Conjunctival, pharyngeal, urethral, and cervical specimens were positive for C trachomatis on McCoy cells and by direct immunofluorescence using monoclonal antibodies against the organism. As in case 1, tetracycline and doxycycline were ineffective, only rifampicin being successful.

Case 3—A 28 year old dentist began treating our first patient five days after he had started doxycycline. The dentist performed a filling over two visits, using surgical gloves and sterile instruments but inadvertently exposing his face to the patient’s oral secretions, which became vapourised by diamond tipped cutters mounted on water cooled turbines. Three days later the dentist began to have ocular reddening and itching and, soon afterwards, bilateral purulent conjunctivitis. C trachomatis was isolated from conjunctival and pharyngeal specimens but not from urethral specimens. The dentist was given the same treatment as in cases 1 and 2, only rifampicin proving effective.

In all three cases we obtained definite clearance of clinical symptoms and negative laboratory data for C trachomatis in infected sites, which remained negative several months later.

Comment

In case 3 transmission of C trachomatis presumably did not occur by direct mucosal contact but by airborne transmission in saliva which became dispersed as an aerosol with water sprayed by the high speed drill. We therefore suggest that dentists should use plastic screens to shield the face from possibly contaminated aerosol droplets created by routinely used dental instruments.

Contamination of the dentist occurred during treatment with doxycycline in case 1. Despite good patient compliance, in none of our cases did doxycycline essentially modify the clinical symptoms or eliminate C trachomatis; this is in contrast with other reports.

Therapeutic failures with tetracycline and doxycycline and success with rifampicin in our three cases should be borne in mind when choosing treatment for C trachomatis infections resistant to commonly used antibiotics.

5 Bowie WR. Epidemiology and therapy of Chlamydia trachomatis infections. Drugs 1984;27:459-68.

(Accepted 6 January 1987)

La Sapienza University and CNR Institute of Experimental Medicine, Rome, Italy 00161
M MIDULLA, MD, chief of virus laboratory, professor of paediatrics
D SOLLECTTO, MD, CNR, fellow
F FELEPPA, medical student
A M ASSENSIO, MD, associate professor of paediatrics
S ILARI, MD, postgraduate student
Correspondence to: Professor Mario Midulla, Institute of Paediatrics, La Sapienza University, Italy 00161.

Perforation of nasal septum due to button battery lodging in nose

Increasing attention has been paid recently to tissue necrosis caused by button batteries in contact with mucosal surfaces. I report on a child whose nasal septum perforated when a button battery containing silver oxide lodged in his nose.

Case report

A 4 year old boy presented to this hospital with a foreign body in his left nostril, which could be seen on examination. He did not have a nasal discharge or pain. As the foreign body could not be removed easily he was given a short general anaesthetic the next day during a routine operating list; a battery (392 Eveready, Sony, Japan) 7-9 mm in diameter and 3-6 mm thick was removed, and a blackened area was noted on both sides of the nasal septum where it had been in contact with the battery. On closer examination this area was found to have a small perforation. The battery had probably been in the nose for about 24 hours.

The manufacturer’s data showed that the electrolyte in the battery was 25% potassium hydroxide; the anode contained zinc, 45% potassium hydroxide, mercury, and CMC (the manufacturer will not disclose what this is); and the cathode contained silver oxide, silver nickel dioxide, and Teflon.

Comment

A smooth round foreign body lodged in the nose for only a short time would not normally be expected to cause septal perforation. The electrolyte content of this particular battery was 25% potassium hydroxide. Alkalis are corrosive and damage tissue because of their reaction with protein, saponifying effect on liquids, and necrotic effects on tissue cells. Thus the alkaline content of the battery probably caused the necrosis.

Ear, nose, and throat clinicians will probably see increasing numbers of patients with button batteries as foreign bodies: the batteries are widely used not only in hearing aids, cameras, and calculators but also in electronic games, which are popular with children. Swallowing of such batteries is becoming more common,1,2 and two deaths due to oesophageal perforation have been reported.3,4 I recommend that button batteries lodged in a body cavity are removed as a matter of urgency.