

SHORT REPORTS

Syngamus in a West Indian

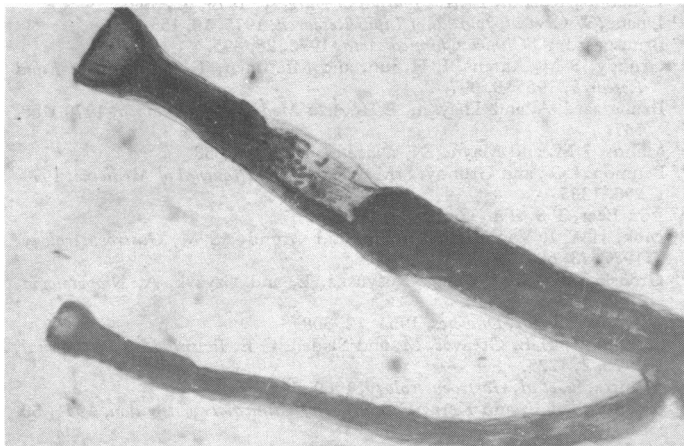
With extensive international travel and the presence of a large immigrant population in England, it is important for doctors to be aware of the possibility of rare causes for common complaints in patients from overseas.

Case report

In March 1975 a 34-year-old businesswoman from Dominica, West Indies, was admitted to the Princess Margaret Hospital, Dominica, for investigation of a chronic cough. She had travelled extensively between the Windward and Leeward group of Caribbean Islands. Three months before admission to hospital she developed an irritating cough, associated with a "tight" sensation in her chest and productive of thick mucoid sputum. The symptoms became more severe and were accompanied by episodic "wheezing" spells. On occasions during the course of her illness she claimed to have coughed up "live worms." There was no associated chest pain, fever, haemoptysis, or weight loss.

She was an obese apprehensive black woman who had a blood pressure of 150/80 mm Hg, pulse rate of 90 beats/minute, and no fever. There was no clinical evidence of bronchospasm. The heart and other systems were normal. Haemoglobin concentration was 12 gm/dl. The leucocyte count was $6 \times 10^9/l$ with 4% eosinophils. The erythrocyte sedimentation rate was 20 mm in one hour. The chest radiograph was normal. Repeated stool microscopy was negative for parasites. Examination of one of the sputum specimens expectorated after a severe bout of coughing showed a pair of copulating syngamus worms producing a characteristic Y shape (see figure) together about 20 mm in length.

She recovered completely after treatment with thiabendazole.



Syngamus showing Y-shaped appearance of the permanent copulatory position, and buccal capsules for attachment to host.

Comment

The genus *Syngamus* (gapeworms) commonly produce "the gapes" in birds and domestic fowl, a disease characterised by spasms of dyspnoea and ending in death from asphyxia due to disease of the trachea and bronchi.

Human infection is rare. The first reported case in English literature appeared in 1913,¹ and since then only a few isolated cases have been documented, particularly from the Caribbean area.^{2,3} As recently as 1974, Basden *et al*⁴ described for the first time gapeworm infestation in a patient from Britain, and noted that the patient, a white doctor, had visited the West Indies on holidays in 1970.

Syngamus infection may be difficult to diagnose even when the organism is producing symptoms, and most reports have highlighted the unexpected manner in which the diagnosis was made. St John *et al*⁵ in 1929 found syngamus ova in the sputum; Basden *et al* aspirated the worm on bronchoscopy; and in our patient we identified the adult copulating parasites in the sputum after a severe bout of coughing.

At the University Hospital in Jamaica no case of gapeworms has

yet been recorded in man, perhaps because of a low general level of suspicion. This case report is intended to alert doctors dealing with people from the West Indies and elsewhere to considering and excluding this unusual parasite when presented with respiratory problems defying more conventional diagnoses.

¹ Leiper, R T, *Lancet*, 1913, **1**, 170.

² Hoffman, W A, *Puerto Rico Journal of Public Health and Tropical Medicine*, 1931, **6**, 381.

³ Wells, A V, *British Medical Journal*, 1951, **2**, 952.

⁴ Basden, R D E, Jackson, J W, and Jones, E J, *British Journal of Diseases of the Chest*, 1974, **68**, 207.

⁵ St John, J H, Simmons, J S, and Gardner, L L, *Journal of the American Medical Association*, 1929, **92**, 1816.

(Accepted 15 September 1978)

University of the West Indies, Mona, Jamaica

G A C GRELL, MRCP, DTM&H, consultant physician

Princess Margaret Hospital, Dominica, West Indies

E I WATTY, FRCP(C), DTM&H, pathologist

Department of Medical Helminthology, London School of Hygiene and Tropical Medicine, London WC1

R L MULLER, PHD, senior lecturer

Paraplegia as a result of lightning injury

Neurological complications of lightning injury were reported as early as 1934.¹ We report a patient with paraplegia resulting from lightning injury.

Case report

A 25-year-old man was struck by lightning while climbing a mountain. He was unconscious for 30 minutes. He presented at hospital with electrical flash burns over his occiput and neck, across the shoulders, round the right side of the chest, and down the left leg. He also had frostbite of his fingers. The initial neurological examination was normal. Thirty-six hours later he developed complete paralysis of both legs without bladder or bowel disturbance. The upper limbs were neurologically normal and the cranial nerves were intact. He had a pyramidal lesion affecting both legs, with pronounced ankle and patellar clonus and bilateral extensor plantar response. There was profound weakness of hip, knee, and ankle flexors. The abdominal reflexes were absent. He had a loss of pin-prick sensation below the groin and definite loss of vibration in the lower limbs together with some impairment of joint and position sense. There was considerable weakness of the erector spinae muscles. Investigations showed haemoglobin 12.5 g/dl and white cell count $16.8 \times 10^9/l$ ($16\ 800/mm^3$) with a pronounced shift to left. Sequential multiple analysis results (SMA 12) were within normal limits. Radiographs of the skull, cervical spine, and right ankle were normal: radiographs of hands and feet showed much soft tissue swelling.

The burns of the occiput and left ankle were treated with skin grafts. Six months after the initial injury there was still some weakness of both legs, particularly of the hip and knee flexors. Ankle clonus persisted but touch, vibration, and joint and position sense had returned to normal.

Comment

Lightning injuries are uncommon in Britain. About 12 people annually are struck.² Contrary to popular belief, the injuries do not always result in death. Complications are cutaneous burns, loss of consciousness, loss of memory, and subdural and subarachnoid haemorrhage.³ Loss of consciousness with retrograde amnesia and a reversible flaccid paralysis, thought to be peripheral in origin, are encountered most commonly.¹ Cerebral oedema, generalised convulsions, and hemiplegia have all been reported, as well as extra