FIG. 3—Temperature and pulse chart showing effect of influenza-like illness, during which time patient felt hot and sweated profusely until temperature returned to previous baseline.

Comment

Hypothermia, as a terminal event, is not uncommon with hypothalamic tumours (Davison and Selby, 1935; Bauer, 1954). It also occurs in other forms of intracranial disease (Hockaday *et al.*, 1962; Fox *et al.*, 1970) but only four patients with a similar periodic temperature disturbance to our patient have been reported on previously (Duff *et al.*, 1961; Shapiro *et al.*, 1969; Guihard *et al.*, 1971). The girl reported by Duff *et al.* (1961) was essentially the same 15 years after hypothermia was first diagnosed (V. M. Leveaux, personal communication, 1972). Like the present patient there was no abnormality on the lumbar air encephalogram, but the two women reported on by Shapiro *et al.* (1969) and the boy by Guihard *et al.* (1971) had agenesis of the corpus callosum with an enlarged third ventricle extending upwards between widely separated lateral ventricles.

Hoffman and Pobirs (1942) suggested that sweating attacks were a form of focal autonomic epilepsy. Our patient was certainly epileptic and has had major convulsions when both hypothermic and normothermic. Her fits were not preceded by an aura, they did not seem to be related to her sweating attacks, and while the former were well controlled by anticonvulsants the latter were not. The ataxia that occurs in hypothermia has been described before (Duff *et al.*, 1961) but to our knowledge the hypothermic flap has not. Her ataxia was not due to phenytoin as it occurred when she was not on drugs.

It seems highly probable that her previous admissions to psychiatric hospitals might have been due to hypothermia, but with a clinical thermometer of the usual type hypothermia can easily be missed. The notch at the base of the column of a clinical thermometer is designed to prevent the mercury retreating down the scale after removal from the patient. It is essential, therefore, for the mercury column to be shaken down below the temperature scale before a recording is attempted. In some cases this takes much time and effort. Twenty ordinary thermometers in ward use were tested. One required 25 vigorous shakes and three others more than a dozen before this was achieved. The two low-reading thermometers available on the ward both needed more than 30 shakes to push the column below the scale. How many overworked nurses are obsessional enough to bother with every patient, especially when detection of pyrexia is their usual aim? Are there other patients intermittently attending hospitals with undiagnosed periodic hypothermia?

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An Unusual Neurological Manifestation of Tuberculosis

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The clinical presentation of tuberculosis in immigrant groups in this country may differ from that observed in the indigenous population. We have recently seen two immigrant patients with tuberculosis presenting with loss of use in an upper limb due to

an asymmetrical cervical radiculopathy. In neither case were there symptoms of spinal cord dysfunction and the radiographs of the spine showed no abnormality.

Case 1

A 32-year-old West Indian man who had lived in England for 18 years gave a six-month history of intermittent pains in the interscapular region. He felt generally unwell and lethargic with a 20-lb (9-kg) weight loss and night sweats. Six weeks before admission he had developed several soft painless lumps around the ribs on the left side. Seven days before admission he noticed weakness of the right arm, which progressed over three or four days to complete loss of power in the shoulder, elbow, and wrist, although he could still move his fingers.

On admission his temperature was 38.4°C and he looked unwell. Neck movements were limited by pain, though there was no neck rigidity and straight leg raising was full. There was a localized swelling, exquisitely tender, just to the left of the spinous processes of the L2 and L3 vertebrae. There were four soft fluctuant non-tender round lumps about 2 cm in diameter between the skin and bone over the left side of the thorax, lying between the second and eighth rib and between the anterior axillary line and the sternum.

Examination of the central nervous system showed a complete flaccid paralysis of all muscles at the right shoulder and elbow, with incomplete flaccid paralysis of the right wrist extensors and long

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extensors of the thumb and fingers. Power was preserved in the right wrist flexors, long flexors of the thumb and fingers, and small muscles of the right hand. There was very slight weakness of the left triceps and of the wrist and long finger extensors on the left side. Motor function in the trunk and legs was normal. All the deep tendon reflexes in the arms, except the left biceps jerk, were absent. Knee and ankle jerks were brisk bilaterally, abdominal reflexes absent, and plantar responses extensor. Sensation and sphincters were normal.

Investigations were: haemoglobin 10.4 g/100 ml; E.S.R. 45 mm in the first hour; radiographs of the chest, skull, cervical, dorsal, and lumbar spine showed nothing abnormal; aspiration of one fluctuant cystic swelling from the left chest wall produced 0.5 ml of yellow-green pus in which acid-fast bacilli were seen and subsequently cultured. He was given antituberculous therapy on the day after admission and began to respond immediately. Within three months of presentation he was entirely symptom-free, afebrile, 15 lb (7 kg) heavier, with no abnormalities on skeletal or neurological examination.

Case 2

A 25-year-old Indian man came to England in November 1971. He had received B.C.G. vaccination as a child and at the age of 23 had worked for two weeks in a ward for tuberculous disease in South India. Early in 1972 he began to feel generally unwell and complained

of fatigue and lassitude. His appetite was poor and he lost 15 lb (7 kg) in weight. He then began to experience a dull aching pain in the right side of his neck radiating down to his elbow. The pain gradually increased in severity and was unrelieved by courses of neck traction. Four days before admission to the neurological unit on 13 September 1972 he noticed weakness of his right hand.

Examination showed a thin, ill-looking man, with a temperature of 37.5°C. All neck movements were limited because of pain, and the small muscles of his right hand showed generalized moderately severe weakness. The deep tendon reflexes were all present and equal and sensation was intact.

Investigations were: haemoglobin 13.8 g/100 ml; E.S.R. 50 mm in the first hour; cerebrospinal fluid, normal; radiographs of the cervical and dorsal spine did not show any abnormality; radiographs of the chest including tomography showed a small rounded right apical opacity and a paravertebral shadow to the right of C7, D1, D2, and D3 vertebral bodies. A cervical myelogram on 22 September (Dr. Ian Isherwood) showed the spinal theca and cord displaced to the left at the C7, D1, and D2 levels by a long extradural lesion on the right side (see fig.). C7-D1 laminectomy on the same day (Mr. F. A. Strang) showed a paraspinal abscess behind the laminae on the right and an extensive extradural granuloma. Much of this abnormal tissue was removed, from which tubercle bacilli were subsequently cultured. Antituberculous therapy was begun, and when reviewed in mid-November the patient felt well and had regained his weight. Full power had returned to his right hand.

Comment

Both these patients presented with an asymmetrical cervical radiculopathy caused by a tuberculous extradural abscess. The main clues to the aetiology of the lesion in both instances were the country of origin of the patients, their spinal pain, and the presence of a significant constitutional illness. This form of presentation of tuberculosis is rare in this country. Kocen and Parsons (1970) described a patient with a lumbar radiculopathy and drew attention to the case described by Decker *et al.* (1959) in whom an extradural tuberculous abscess simulated a prolapsed lumbar intervertebral disc. The absence of any radiological abnormality of the bony spine in our patients is noteworthy, a point recently stressed by Davies (1971) and Murley (1971) in the early stages of bone and joint tuberculosis. The most important feature in the diagnosis of tuberculosis in this country at present is to consider it as a possibility—especially in patients born in the West Indies or the Indian subcontinent.

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Case 2. Cervical myelogram showing extradural mass on right side at C7, D1, D2, displacing spinal cord to left.