

at the time of admission her clinical condition gave rise to considerable concern, and in a patient with one kidney the dangers associated with a cycloserine level of 91  $\mu\text{g./ml.}$  could not be rapidly ascertained. Peritoneal dialysis was therefore undertaken, and the clinical response demonstrated that this is a good method of removing cycloserine from the system.

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## Post-Varicella Polyneuritis

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Acute polyneuritis is an unusual complication of chicken-pox. Since 1873 only 15 cases have been reported, of which patients the oldest was aged 22 years. The following report is of this condition in a middle-aged woman.

### CASE REPORT

The patient, a previously healthy woman of 60, developed classical chicken-pox on 6 January 1964; this progressed uneventfully until the 12th, when her legs became weak. By the 15th she could not walk and noticed weakness in her arms. This worsened, and on the 17th she was admitted to hospital. She was afebrile throughout her stay there. On the 19th a right facial palsy developed and there was some dysphagia. She was then transferred to the respiratory unit at Hither Green Hospital.

On examination a fading chicken-pox rash was seen. Cranial nerves: sixth right lateral rectus palsy, seventh bilateral facial palsy worse on right, partial bulbar palsy; otherwise normal. Tendon reflexes: right triceps jerk just elicitable, all others absent. Plantar reflexes absent. Power: lower limbs paralysed, upper limbs weak. Sensation: all modalities impaired in lower limbs and left upper limb. Vital capacity: 850–1,000 ml. No other significant abnormalities. Blood count normal. In view of her condition lumbar puncture was not performed.

She was nursed semi-prone and head-down, with fluids and tetracycline administered by plastic gastric tube. Physiotherapy was begun immediately. No further spread occurred after 19 January. By the 25th she could swallow and the left facial weakness was minimal; the right facial palsy persisted and exposure keratitis developed, necessitating tarsorrhaphy. One month after admission power in her upper limbs was full, in her lower limbs moderate; sensation was normal. Some right facial weakness persisted, but the tarsorrhaphy was opened without ill effect. Vital capacity was nearly normal. Walking was started, but on 25 February she developed signs suggesting a deep calf-vein thrombosis, and phenindione therapy was instituted, with return to bed. However, the signs were not definite, and it was thought that there had been muscle pain related to the regeneration of the nerve supply. She was therefore allowed up and the anticoagulant was tailed off.

She was discharged home on 18 March. There was no appreciable weakness in the limbs, but some right facial weakness persisted, with diplopia to the extreme right. Daily physiotherapy

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continued, and by June no residual disability was detectable, though she complained of tiring easily.

### COMMENT

Underwood (1935) quotes six cases of polyneuritis out of 120 cases of neurological complications of chicken-pox reported between 1873 and 1935. The ages of the patients varied from 2½ to 11 years; paralysis appeared 3 to 50 days after the onset of the rash, average 12 days. One case showed facial weakness, and one had bulbar involvement. Underwood quotes a case of paralysis of the levator palpebrae superioris and all the external ocular muscles except the lateral recti, but without peripheral neuritis.

Miller *et al.* (1956), reviewing the literature since 1935, found nine cases; the eldest patient was 22. Paralysis appeared 7 to 20 days after the onset of the rash, average 11.25 days. He quotes four cases of facial paralysis, bilateral in three, with diplopia in one. Five patients had bulbar involvement, and two had peripheral sensory loss. The duration of illness was 8 to 16 weeks. In all cases complete or almost complete recovery followed.

Herpes zoster is more common in the elderly. It usually involves sensory roots but sometimes is followed by a lower-motor-neurone paralysis, commoner in cranial nerves and upper limbs than in lower limbs.

The above case followed the pattern of post-chicken-pox polyneuritis in the young, symptoms appearing six days after the onset of the rash, with complete recovery after five months. The patient possibly developed an incipient deep-vein thrombosis. This is rare in paralytic disease in the young; in the preceding 12 months, however, I saw two elderly polyneuritics who had developed calf-vein thrombosis with pulmonary embolism, in one case fatal. This seems to be a particular complication of elderly paralysed patients, and its avoidance is important in treatment and prognosis.

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