

## Molluscum contagiosum: an unusual complication of tattooing

Molluscum contagiosum is a common viral disease of the skin. The causative virus, from its size, shape, fine structure, cytoplasmic site of replication, and characteristic inclusion body, appears to be a member of the pox group. Transmission is thought to occur by direct contact, though the incubation period is not known and inoculation experiments have failed. Although any infective condition might theoretically be inoculated by tattooing, in practice the only diseases that have been reported are pyogenic infection, syphilis, tuberculosis, serum hepatitis, and one case of viral warts.<sup>1</sup>

### Case report

A 20-year-old man presented in September 1981. Seven months earlier he had had a tattoo professionally performed on his left upper arm with a single needle, using carbon, scarlet lake, and chlorinated copper pigments. Within three months of the tattooing a crop of seven lesions of molluscum contagiosum localised to the area of tattoo performed with carbon pigment had appeared. These had persisted until the time of consultation (figure). Direct microscopy of an unstained curetted lesion on a slide confirmed the diagnosis of molluscum contagiosum. A similar tattoo performed professionally on his right upper arm three years earlier had had no sequelae. He had had no other serious illnesses or skin diseases in the past apart from four common warts present on the palm of his right hand for four years. There was no family history of atopic disease. No treatment was given, and the lesions disappeared spontaneously within six months.



Molluscum contagiosum localised to area of tattoo performed with carbon pigment.

### Comment

In this patient the virions of molluscum contagiosum were presumably inoculated at the time of tattooing and must have been present within the tattoo pigment, which consisted of charcoal suspended in ammoniacal solution containing phenol. To date no similar cases have been reported, which suggests that a particular host environment is required to establish the growth of molluscum contagiosum.

There is some clinical evidence that molluscum contagiosum is spread by direct contact. Seven patients under the care of one surgeon were infected with molluscum contagiosum at the site of operation.<sup>2</sup> Three women attending a Turkish bath in Sheffield recently developed multiple lesions of molluscum contagiosum at the sites where common salt was rubbed in, suggesting that the salt contained the virus particles (unpublished observation). There have been few reports of molluscum contagiosum affecting more than one member of a family,<sup>3,4</sup> however, again suggesting that a particular host environment is required. Molluscum contagiosum is thought to occur more commonly

in atopic people, though there are only isolated case reports to confirm this and there is dispute over whether the lesions of molluscum contagiosum affect involved or uninvolved areas of active atopic dermatitis.<sup>5</sup>

This isolated appearance of molluscum contagiosum occurring as a result of professional tattooing, localised to one pigment of the tattoo, warrants further investigation into the host environment required for the establishment of this virus.

- 1 Scutt RWB. The medical hazards of tattooing. *Br J Hosp Med* 1972;8:194-202.
- 2 Paton EP. Seven cases in which operation wounds were infected with molluscum contagiosum. *Westminster Hospital Report* 1909;16:11-5.
- 3 Calvert JW. Molluscum contagiosum. *Arch Dermatol* 1972;106:601.
- 4 Overfield TM, Brody JA. An epidemiological study of molluscum contagiosum in Ankorage, Alaska. *J Pediatr* 1966;69:640-2.
- 5 Block SH. The association of molluscum contagiosum and infantile eczema. *Med J Aust* 1972;2:626-7.

(Accepted 26 May 1982)

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## Hypocalcaemia-induced epilepsy during lactation

Hypocalcaemia is a rare but well-recognised cause of grand mal convulsions<sup>1</sup> and may come to light only as a result of routine biochemical screening. In the present case grand mal convulsions occurred due to hypocalcaemia after a prolonged period of lactation.

### Case report

A 28-year-old woman presented with a history of four grand mal fits within the previous month. During this period she had felt unusually tired and had suffered from generalised headaches, poor memory, and paraesthesiae in the hands and legs. There was no history of birth trauma, head injury, or epilepsy. She had given birth to her first child by caesarean section in February 1980 and had subsequently been breast feeding up to the time of admission eight months later.

Her father suffered from grand mal epilepsy and her sister had petit mal seizures. She was the youngest of four sisters, all of whom had achieved much greater academic success than her.

On examination she was stocky, being 160 cm in height (smaller than her sisters) and weighing 57.2 kg. Her teeth showed a considerable number of minor enamel defects. Chvostek's sign and Trousseau's phenomenon did not occur. The rest of the clinical examination was normal.

The results of investigations were as follows: haemoglobin concentration 12.1 g/dl; bicarbonate 28 mmol(mEq)/l; calcium between 1.45 and 1.54 mmol/l (5.8 and 6.16 mg/100 ml) on several occasions; phosphate 1.89 mmol/l (5.85 mg/100 ml); alkaline phosphatase 490 IU/l; albumin 42 g/l; total protein 74 g/l; magnesium 0.69 mmol/l (1.68 mg/100 ml); and parathyroid hormone <0.1 µg/l (normal range 0.1-0.73 µg/l). A cyclic adenosine monophosphate stimulation test yielded positive results. Autoantibodies were absent on screening, and chest and skull x-ray films and a computed tomogram were normal, with no sign of intracranial calcification. Cerebrospinal fluid was at a pressure of 120 mm water and of normal constitution. Electroencephalography showed moderate bilateral abnormalities with paroxysmal features. Psychological testing yielded an IQ of 81 with poorer than expected verbal and non-verbal memory function.

Primary hypoparathyroidism was diagnosed, and she was treated initially with intravenous calcium gluconate and then maintained on 1α-hydroxycholecalciferol 2 µg daily and a high-calcium diet. The serum calcium concentration returned to normal. Anticonvulsants were stopped, and she remained free of fits.

### Comment

Her fits were thought to be due to hypocalcaemia rather than idiopathic epilepsy because, firstly, the plasma calcium concentration was sufficiently low to cause convulsions; secondly, the symptoms of hypocalcaemia, such as paraesthesiae, had begun at the time of the first convulsion; and, thirdly, she remained completely free of fits without anticonvulsant medication once the hypocalcaemia had been corrected. The absence of frank tetany and of Trousseau's phenomenon and Chvostek's sign is unusual in severe hypocalcaemia but not unknown.<sup>2</sup>