Infantile congenital syphilis

Presenting with bilateral orchitis

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'Syphilis is forgotten but not gone'. The steady increase in cases of early infectious syphilis, after a steep fall during the post-war period has been a global phenomenon. Concurrently, infantile congenital syphilis is also seen more frequently, both in hospital and in general practice.

Case report

A 9-day-old male infant was admitted to the Surgical division on July 19, 1969, for treatment of a scrotal swelling present since birth. Both testicles were enlarged, tender, and firm in consistency, and the overlying scrotal skin was inflamed. The child was otherwise apparently well. He was given intramuscular injections of crystalline penicillin 100,000 I.U. 6-hrly, and the scrotal swelling started to regress very rapidly. He was then referred to the Skin and V.D. Department for assessment.

He was the second child of the family and the outcome of the fourth pregnancy. He had been born prematurely at the 8th month, the delivery being normal. The first two pregnancies had ended in abortion after 1½ to 2 months' gestation. The third pregnancy had been unevent-

ful and the boy's sister was at that time 4 years old and healthy. The mother had no past history or clinical evidence suggestive of syphilis, but the father had had a penile sore followed by a rash 18 months before the baby's birth, and had then received inadequate treatment.

EXAMINATION (July 25, 1969)

The child appeared to be poorly developed (weight 4 lb 12 oz) but was quite active and vigorously moving all four limbs. There was no tenderness or prominence of the ends of the long bones, except in the region of the left shoulder; this was more prominent, but not tender. There was no history of trauma. The left testis was still slightly enlarged, firm in consistency, and not tender. The left cord was thickened. By this time the scrotal skin was normal. The liver was palpable 1½ fingers breadth below the costal margin. No other clinical lesion was detected.

The results of VDRL tests on the family were as follows:

Child	Mother	Father	Sister
Positive 1:16	Positive 1:64	Positive 1:2	Negative

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FIGS 1 AND 2 Skiagrams of right and left shoulders on July 25, 1969, showing hyperostosis of upper end of the humerus, more marked on the left side.

Blood studies Haemoglobin 8.75 g. per cent. Total leucocyte count 8,500/cmm.: polymorphs 44 per cent., lymphocytes 50 per cent., large monocytes 6 per cent.

Radiology A skiagram of the child's skeletal system showed hyperostosis of the upper end of each humerus, more marked on left (Figs 1 and 2, see previous page). There was no evidence of osteochondritis or any other bony abnormality.

TREATMENT

The child was given injections of PAM 150,000 units intramuscularly daily for 16 days (total 2.4 m.u.). A

dramatic reduction in the size of the testicular swelling was observed, but there was no appreciable change in the left shoulder.

PROGRESS

The child was seen again on April 11, 1970, as the mother was concerned about the increasing size of his head (Figs 3 and 4). The circumference of the skull was 47 cm. (normal 45 cm.) and the crown-rump distance 42 cm. The child was otherwise quite healthy, cheerful, and active. Skiagrams of the skull and shoulders (Fig. 5) were normal; the hyperostosis seen earlier at the upper ends of

FIGS 3 AND 4 Photographs taken on April 11, 1970, showing enlarged head, side and front views.

FIG 5 Skiagram of shoulders on April 11, 1970. The hyperostosis has completely resolved.

the humeri had completely resolved, and the VDRL test gave negative results. The cerebrospinal fluid was normal (clear, colourless fluid with normal pressure; cells 2; total protein 30 mg. per cent.; VDRL tests negative).

The titre of the VDRL test in the mother had fallen to 1 in 2 after treatment.

Comment

The incidence of orchitis in cases of congenital syphilis has been variously reported by different workers. According to Findlay (1919), orchitis develops in the first few weeks of life in 2 to 3 per cent. of cases. Henoch (1889), Carpenter (1892, 1901), and Seringhe (1899: quoted by Nabarro, 1954a) stated that the testis was affected in a considerable proportion of cases, and that this might be overlooked owing to variations in the size of normal testicles. Singh (1962) did not observe orchitis in his analysis of 88 cases of congenital syphilis. An enlarged testis in an infant below the age of 4 to 5 months should arouse suspicion of congenital syphilis; prompt antisyphilitic treatment leads to a dramatic resolution of the orchitis with a very good prognosis for normal physical development and subsequent fertility. In the case reported above, the orchitis was bilateral with signs of acute inflammation involving the overlying skin, and the condition responded dramatically to treatment.

The bony lesions in syphilitic fetuses and in neonates, which are characteristic and may be widely distributed in the body, have been extensively studied by many workers. McLean (1931a, b) expressed the opinion that syphilitic lesions were always widely distributed and that, in the first month of life, a lesion of a single bone was never due to syphilis: periostitis never presented alone during the neonatal period, and was always accompanied by osteochondritis. Our case showed two unusual features of bony lesions. Hyperostosis appeared alone and was not accompanied by evidence of osteochondritis at the age of 15 days. The hyperostotic lesion resembled the 'periostitis callosa' of Schneider, but there was no evidence of epiphysitis. Secondly, the hyperostotic lesion was confined to only two bones. However, two cases of infantile congenital syphilis with single bone involvement have been previously reported, by Nabarro (1954b) and Schoenberg (1966).

A long-term follow-up of this case is planned, as one of the most distressing aspects of the treatment of prenatal syphilis is the inability to prevent the occurrence of late sequelae such as interstitial keratitis, Clutton's joints, and eighth nerve deafness, in spite of 'adequate' therapy with penicillin. Moreover, in recent reports (Collart, Borel, and Durel,

1964; Yobs, Rockwell, and Clark, 1964; Goldman and Girard, 1967; Yobs, Clark, Mothershed, Bullard, and Artley, 1968; Rice, Dunlop, Jones, Hare, King, Rodin, Mushin, and Wilkinson, 1970) treponemes have been isolated from the lymph nodes and aqueous humour of treated cases of syphilis, both in experimental animals and in human subjects. These findings suggest that we should revise our concepts, as syphilis is again proving hard to diagnose and hard to treat.

Summary

A case of infantile congenital syphilis manifested by bilateral orchitis and hyperostotic lesions of both humeri, involving particularly the upper end of the left humerus is reported and discussed.

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Syphilis congénitale de l'enfant avec orchite bilatérale

SOMMAIRE

On rapporte et l'on discute un cas de syphilis congénitale de l'enfant se manifestant par une orchite bilatérale et des lésions d'hyperostose des deux humérus, touchant particulièrement la partie supérieure de l'humérus gauche.