

SYPHILITIC HYDRARTHROSIS

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Symmetrical synovitis of the knee joint occurring in the course of congenital syphilis, though noted earlier, was first reported in detail by Clutton (1886). From his observations on eleven cases, Clutton was able to delineate the clinical features of the condition with an accuracy which has been fully confirmed by later workers. He described the usually insidious onset of painless effusions into both knee joints, the freedom from any great functional disability and the ultimate perfect recovery.

INCIDENCE

Leo (1932) reported twenty cases in a series of 292 congenital syphilitics (7 per cent.). Klauder and Robertson (1934) found 17 per cent. of 363 cases to be affected. Nabarro (1954) found forty cases among 465 congenital syphilitics (9 per cent.).

MAIN CLINICAL FEATURES

The condition commonly occurs between the ages of 8 to 15 years. The youngest recorded was 5 and the oldest 35 years of age.

It is doubtful that there is any sex predilection. Klauder and Robertson found the condition to be more prevalent in females but in Nabarro's series the sexes were found to be equally affected.

Though the synovitis is commonly reported as being painless, this is by no means always true. Borella (1962) reporting on eight cases noted that all the cases complained of pain. The pain however was never severe.

The swelling usually begins in one knee joint, although it is often bilateral by the time the patient seeks medical advice. Sometimes there is an interval of months or years before the second knee is affected; in one of Clutton's cases two years elapsed before the other knee was involved.

Findings at examination are those of a flaccid effusion. Synovial thickening may be felt. Increased warmth of the part is a common finding. The joint movements are usually full despite the effusion. Not infrequently pain is present on full flexion.

Involvement of joints other than the knees has been reported. Klauder and Robertson (1934) reported involvement of the elbow joint

in two of their cases, and the elbows, wrist, fingers and ankles were affected in cases reported by Jeans and Cooke (1930).

The X-ray appearances are those of an increased joint space without evidence of bony changes. Aspirated joint fluid is straw-coloured and slightly turbid, contains occasional leucocytes and is sterile on culture.

REPORT OF CASES

Case I. A 13 year old male Chinese reported with a swelling of the right knee of two months duration. He attributed this to a fall. There was mild initial pain which soon subsided. There was a moderate flaccid swelling of the right knee. The synovium was not thickened. There was a full range of knee movements though terminal flexion produced discomfort.



Fig. 1. Case I. Moderate effusion in right knee.

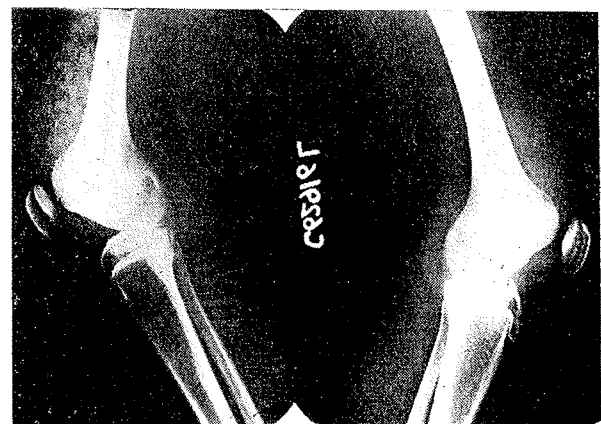


Fig. 2. Case I. Shows soft tissue swelling of right knee.

X-rays showed a moderate effusion in the joint but no bone changes.

The joint was aspirated and 75 c.c. of turbid straw-coloured fluid withdrawn. Microscopy showed occasional polymorphs and lymphocytes. Culture of the fluid was negative for organisms (including acid-fast bacilli).

The swelling subsided after aspiration but he came back a month later with symmetrical swelling in both knees. A Kahn Test and a W.R. were done, and were strongly (4+) positive. He was given a course of penicillin injections. Two months later the swelling in both knees had completely subsided. When reviewed a year later the knees remained normal.

Case II. An 11 year old Chinese female came up in May 1959 with three months swelling in both knees. The swelling started in the left knee and the second knee became involved two weeks later.



Fig. 3. Case II.

She had bilateral symmetrical painless effusions in the knees. Movements in the knees were full. There was no evidence of interstitial keratitis or other stigmata of congenital syphilis.

X-rays showed bilateral knee effusions without any bone changes. Straw-coloured fluid was aspirated from both knees. Culture of the fluid was sterile. Blood K.T. and W.R. were done and were negative. Synovial biopsy was therefore carried out to exclude tuberculosis. The child was then put on salicylates with no response. The painless swelling of the knees persisted until January 1962, when the knees returned clinically to normal.

Despite the negative K.T. I feel certain that this is a case of Clutton's joints. The only pos-

sible other diagnosis is rheumatoid arthritis. The persistent effusion without pain, the absence of bone changes after nearly three years make the diagnosis of rheumatoid arthritis unlikely.

Case III. A Chinese girl, aged 15, presented with swelling and aching pain in both knees. The swelling and pain first started in the left knee three weeks prior to admission. A week later the right knee became involved. Both



Fig. 4. Case III.

knees were warm, moderately swollen, and the synovia were thickened. Extreme flexion produced discomfort amounting to pain. Blood K.T. (444) positive. V.D.R.L. (444) positive.

X-rays of her knees show no bony changes. She was given antisymphilitic therapy. On discharge two months later the swelling had subsided considerably.



Fig. 5. Case III.

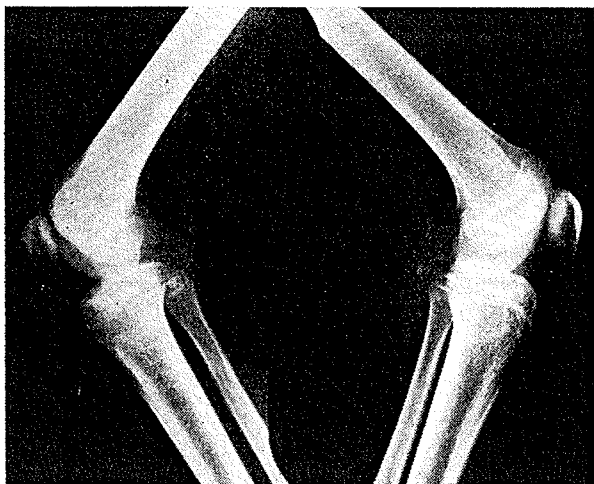


Fig. 6. Case III.

SUMMARY

The literature on Clutton's joints is briefly reviewed, and three cases described.

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