

## CLUTTON'S JOINTS—A CASE REPORT

By

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*Clutton.* in 1886 first described the bilateral, painless effusion of the knee joints as a clinical syndrome in congenital syphilis and ever since this manifestation has been designated as the Clutton's joints. There were isolated references about this condition even prior to 1886 by Richet (1853), Alfred Fournier and by Horand (1875), Forster (1877), Hirschberg (1884), and Virchow (1884).

*Incidence:* Joint involvement is more common in late congenital syphilis than early congenital syphilis and Clutton's joints is the commonest joint manifestation in late congenital syphilis

Clutton considered this manifestation as rare and there were 11 cases in his series. Von Hippel found the joint involvement in 56% of his cases of congenital syphilis. Still recorded 3 cases of Clutton's joints in 100 cases, Fournier in 82 of his 212 cases (38.7%), Klauder and Robertson (1934) in 17%, Laird (1950) in 3.5% and Nabarrow (1954) in 9% of his 465 cases of congenital syphilis. From the literature there seems to be a great variation in the incidence of Clutton's joints ranging from 3% to 56% in different series.

*Age.* The maximum occurrence of Clutton's joints is between the ages of 8 and 15 years. Cases are rarely seen below the age of 5 years and above the age of 20 years. In Nabarrow's 40 cases of Clutton's joints seen in the White chapel clinic, the ages ranged from 8 to 24 years (Rodin 1961). The oldest patient in Klauder and Robertson's (1934) series was 35 years

*Joint Involvement.* The joints that are most frequently affected are the knee joints. Von Hippel found the knee involved in 41 out of 43 cases of Clutton's joints. Clutton's joints involving other than the knees have occasionally been reported. Klauder and Robertson (1934) reported 2 cases affecting the elbow Jeans Cooke (1930) reported Clutton's joints involving the elbows, wrists, and fingers and ankles in their cases.

Though the Clutton's joints are almost always bilateral, one joint may be involved earlier than the other. By the time the patient is brought to the physician both joints are usually affected. The involvement of the second knee may rarely be separated by an interval as long as 2 years as in Clutton's case or even 3 years as in the Nabarrow's reported cases.

*Clinical Features.* Clutton's joints are symmetrical bilateral hydrarthrosis of the knee joints. It is usually a painless condition though occasionally a few cases with a little pain have been reported. No tenderness or functional disability

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is noticed. Other cardinal features are spontaneous development un-associated with trauma, slow evolution and chronicity of the condition. Synovial and periarticular thickening is present.

*X-Ray of the Joints.* X-ray of the Clutton's joints reveals that the joint space is increased without any evidence of bony changes. "Growth lines" are sometimes visible in the X-rays of Clutton's joints.

*Growth Lines.* Harris noted the occurrence of transverse bands of dense structure which are frequently seen in the diaphyses of the bones of growing children known as "growth lines". Dieterle (1906) was the first to suggest that they should be regarded as a sign of arrest of growth. Sir L. Pearsons regarded them as representing a period during which better bone was laid down as a result of improvement in the patient's condition. Such lines can also be found when the pregnant woman is treated with bismuth or even when the child is treated with bismuth for congenital syphilis. Hence the presence of growth lines are not specific of Clutton's joints and probably suggestive of chronic arthritis.

*The Relationship of Clutton's Joints to Interstitial Keratitis.* Several authors have studied the possibility of any significant relationship of Interstitial Keratitis to Clutton's joints. Oksala (1951) found 16 out of 126 cases with interstitial keratitis developed Clutton's joints and that the joint involvement preceded or coincided with the development of I. K. in all except one case. Klauder and Robertson (1934), Jeans and Gooks (1930) and Stokes, Beerman and Ingraham (1944) found no such relationship.

Interstitial keratitis being one of the commonest manifestations of late congenital syphilis, occurs in about 52% of untreated cases. It is no wonder that it is frequently associated with other manifestations of late congenital syphilis and its association with Clutton's joints is more likely to be coincidental than sequential and in all probability there is no relationship between Interstitial keratitis and Clutton's joints except that both are manifestations of congenital syphilis

*Case Report.* V. L., F. V. 162/69. A female child aged 3 years and one month. Complaint as elicited from the mother—swelling of both knee joints—5 months.

Swelling of both elbow joints.— 3 months. Past history—Nil relevant. *Family history.* The patient is the last of the 3 siblings. *Father.* M. V. 1021/69. Gives history of extramarital exposure 4 years ago and had urethral discharge. *Blood V. D. R. L.* Negative.

*Mother.* F. V. 163/69. No history of abortion, miscarriage or still birth. *Blood V. D. R. L.* Positive 8 dilutions. *1st Brother.* M. V. 1922/69 aged 8 years. No evidence of stigmata of congenital syphilis. *Blood V. D. R. L.*— Negative. *2nd Brother.* F. V. 193/69 aged 5 years. No evidence of congenital syphilis. *Blood V. D. R. L.* Negative. *Examination.* General condition good. Though there is no flattening, there is slight depression of the bridge of the nose.

*Knee Joints.* Swelling of both knee joints, symmetrical, bilateral hydrarthrosis. Patellar tap could be easily elicited. There is a marked thickening of the synovial membrane. No pain or tenderness in the knee joints on passive or active movements. No limitation of movement of joints. *Gait.* Knock knee present.

*Elbow Joints.* Both elbow joints slightly swollen. No pain, tenderness or limitation of movements.

*Investigations.* Blood V. D. R. L.—positive 8 dilutions.

*X-Ray Both Knee Joints.* Widening of the joint space without any evidence of bone involvement except for the presence of "growth lines".

*Synovial Fluid.* 1. Straw coloured. 2. Slightly turbid. 3. Total proteins—1.5 gm % Albumin.—1.5 gm.% Globulin—Nil. 4. Smear examination—No organisms or leucocytes seen. 5. Culture—No pathogenic organisms grown. All other investigations were normal.

#### CLUTTON'S JOINTS.

#### *Incidence of Congenital Syphilis, Government General Hospital, GUNTUR.*

1965	1966	1967	1968	1969	Total.
10	6	11	4	15	46

We have seen only one case of Clutton's joints (case under review) in a total of 46 cases of congenital syphilis over a period of 5 years from 1965 to 1969 giving an incidence of 2.2%.

*Treatment.* 1. P. A. M. 3 lakhs 1 M daily for 20 days. 2. Synovial fluid was aspirated and intraarticular betamethasone was given twice at an interval of one week and pressure bandage applied.

*Results.* When reviewed once a month for 3 months, the joints were almost normal.

*Summary.* A case of Clutton's joints is presented because of the rarity of the condition and the lack of reports in the Indian literature.

The commonest joints involved are the knee joints. Very rarely other joint may be affected.

The historical aspect, the incidence, age, clinical and the radiological features of Clutton's joints are described in detail.

The interesting features of the case under review are:—

1. The age of the patient is only 3 years and one month. This is the youngest patient on record as far as we could gather from the available literature.

2. In addition to the Knee joints the elbow joints are also affected.

2. *Treatment* :—

(a) Antisyphilitic treatment.

(b) Aspiration of the joints and injection of intraarticular cortisone.

We are of the opinion that a combined treatment with P.A.M. and intraarticular cortisone should be given a greater trial in cluttons joints

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