RHEUMATOID SPONDYLITIS

A PAEDIATRIC PROBLEM*

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It has been our experience, in contrast to the view generally held (Hilton, 1943), that rheumatoid spondylitis is frequently met with in the female sex and also in young children; we published a case of a boy aged 12 who had had the disease for

FIG. 1.—Case 1. Girl 4 years and 11 months old, with fixed lateral flexion of the head since the age of 32 months. Associated Still's disease. Bony ankylosis of apophyseal joints of C2 and C3 (see Fig. 4).

FIGS 2 and 3.—Case 2. Boy 12 years old, with rigidity of the neck since the age of 6. He cannot look upwards without extending the lumbar spine and bending the knees. Associated rheumatic fever. Bony ankylosis of apophyseal joints from C2 to C6 (see Fig. 5).

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6 years (Lucchesi and Lucchesi, 1945) and have since met with seventeen cases in our practice, between the ages of 1 and 10 years of age. The clinical signs of the disease appeared in seven cases before the age of 3 years. The patients showed clinical and biological characteristics which differed fundamentally from those typical of rheumatic fever (Jones, 1944), their symptoms being mainly those of nervous irradiation of vertebral origin, some with ankylosis of the intervertebral facets and an early calcification of the common lateral ligament. There were eleven girls and six boys in the series.

Clinical Manifestations

The onset was acute in all cases, the first sign being pain varying in degree but usually severe, intermittent in character, and usually of short duration with free periods of days or months. Its characteristics which may appear in any part of the body are those of a segmental funiculitis, resulting from inflammatory changes

FIG. 4.—Case 1, showing bony ankylosis of apophyseal joints of C2 and C3. Pathological changes of sacro-iliacs were not observed in this case.

FIG. 5.—Case 2, showing bony ankylosis of apophyseal joints from C2 to C6.

produced on the posterior spinal facets. Nerve-stretching tests (flexion, extension, rotation, and lateral movement of the spine) are negative, reflexes are normal. The predominant localization of symptoms is in the lower limbs, and in the lumbosacral dermatome, and may be muscular, articular, or deeply situated; in some cases symptoms were located in the lumbar and cervical spine. In three cases the neck was fixed on lateral flexion (Figs 1, 2, and 3), with bony ankylosis in two (Figs 4 and 5), but the great majority did not show any sign in the vertebral column on manipulation or percussion of the spinal processes; in one there was contracture

of paralumbar muscles and in another mid-dorsal scoliosis to the left. In no case was there fever, loss of weight, nor such symptoms as characterize rheumatic fever (fatigue, insomnia, anorexia, etc.). The dominant symptom of spondylitis in the child is pain, variable in character, site, severity, and duration, without any effect on the general health or objective manifestations on the vertebral column in the pre-spondylitic stage.

Blood Picture.—A hypochromic anaemia of slight degree, attributable to intestinal parasitism, was observed in all cases, in six cases the white-cell count reached or slightly exceeded 10,000. The neutrophils were greatly decreased in the majority of cases; the average of eosinophiles was 9·3 per cent., due perhaps to parasitism, in one case it reached 28 per cent.; the average lymphocyte count was 35·2 per cent.

FIGS 6 and 7.—Case 3. Boy 11½ years old, with rheumatic pains of 3 months' duration in the knees, left hip joint, and lumbar spine. Early ligamentar calcification on the lower left border of L3. Bilateral sacro-iliitis. Signs of cavitation with the rosary aspect on right side.

Sedimentation Rate.—Average values were 12 mm. at the end of the first hour and 22 mm. at the second hour; higher figures in two cases were attributable to a recent attack of acute tonsillitis.

X-Ray Findings.—Although the condition of the sacro-iliac joints may suggest some abnormality, this is not reliable evidence for diagnosis in children. In a boy 11½ years old (not in the present series) we observed undoubted signs of a bilateral sacro-iliitis and early ligamentar calcification at the lower border of the third lumbar (Figs 6 and 7); and in another aged 12 with six years' history there was bony ankylosis of the apophyseal joints from C2 to C6 and total obliteration of the joint fissures of the sacro-iliacs (Figs 5 and 8). Slight signs of apophyseal arthritis were observed in the lumbar region in other cases.

FIG. 8.—Case 2, showing obliteration of joint fissures of the sacro-iliacs.

Heart.—This was normal in all cases except one who had associated rheumatic fever and mitral stenosis.

History.—In eleven cases there had been only ordinary childish ailments, in two cases dysentery, in one suppurative otitis, in one influenza, and in one exposure, dysentery, and paludism.

Treatment

Treatment in all cases was by X-ray therapy using small dosage by the wide field method, results were good. Extra vitamins were also given.

Discussion

Besides the present series, we have records of 22 other patients suffering from rheumatoid spondylitis whose first symptoms appeared before the age of 10 years. As we have said, the clinical manifestations of rheumatoid spondylitis in children, which have been attributed to rheumatic fever, include such symptoms as growing pains, wandering pains, and muscular rheumatism, when observed

along the bones, muscles, and tendons. Only Hawksley (1938) concluded that the so-called growing pains are unrelated to rheumatic fever. The identification of infantile rheumatoid spondylitis is to be made principally through the type of symptoms, and thus their accurate recording is necessary. The haematological data are insignificant and the radiographic aspect of the vertebral column is practically normal.

Summary

(1) Contrary to the experience of others, rheumatoid spondylitis has been encountered in our practice in seventeen children under the age of 10 years (eleven girls and six boys), the symptoms being fundamentally different from those of acute rheumatism.

(2) Details are given of clinical examination and x-ray findings in three patients; it is concluded that the dominant symptom is pain which varies in character, site, severity, and duration. There was a slight hypochromic anaemia in all cases, in six cases the eosinophil count was 10,000 or higher, in one it reached 28,000; there was intestinal parasitism in all. The average sedimentation rate was 12 mm. in the first hour and 22 mm. in the second.

(3) X-ray therapy yielded good results.

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Spondylite Rhumatismale—un Problème Pédiatrique

RÉSUMÉ

(1) Contrairement aux autres rapports, les auteurs ont trouvé la spondylite rhumatismale chez dix-sept enfants âgés de moins de 10 ans (onze filles et six garçons) et leurs symptômes étaient essentiellement différents de ceux du rhumatisme articulaire aigu.

(2) Une description détaillée de l'examen clinique et des résultats radiologiques chez trois malades est suivie de la conclusion que le symptôme dominant de la maladie est constitué par la douleur dont le caractère, le lieu, la gravité, et la durée sont variables. Dans tous les cas une discrète anémie hypochromique fut constatée; dans six cas l'éosinophilie s'élevait à 10.000 ou plus, atteignant 28.000 dans un cas; dans tous les cas on a trouvé des parasites intestinaux. La sédimentation globulaire était, en moyenne, de 12 mm. au bout de la première heure, et de 22 mm. au bout de la seconde.

(3) Le traitement par des rayons X donna de bons résultats.

Espondilitis Reumatoide—un Problema Pediatrico

RESUMEN

(1) Contrariamente a la experiencia de los demás, los autores han encontrado entre sus pacientes la espondilitis reumatoide en 17 niños de menos de 10 años (once niñas y seis niños); sus síntomas diferían fundamentalmente de los del reumatismo agudo.

(2) Después de describir los detalles clínicos y radiológicos de tres enfermos los autores concluyen que el síntoma dominante es el dolor de carácter, sitio, intensidad y duración variables. En todos los casos hubo una ligera anemia hipocrómica; en seis casos los eosinófilos eran a 10.000 o más, alcanzando 28.000 en un caso; en todos los casos hubo parasitos intestinales. La sedimentación globular era a 12 mm. al cabo de la primera hora, y a 22 mm. al cabo de la segunda.

(3) El tratamiento por los rayos X dió buenos resultados.