PARAVERTEBRAL OSSIFICATION IN PSORIATIC ARTHRITIS

BY
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In 1957 a patient with psoriasis and arthritis who showed remarkable paraspinal and para-articular ossifications was admitted to the Canadian Red Cross Memorial Hospital. We have since seen three other such cases (including one with autopsy studies) all of whom had psoriatic arthritis.

Case Reports

Case 1, a man aged 52 years when first seen in October, 1957, developed at 48 years pain in the left shoulder, then in the left wrist, and 2 weeks later in the right wrist and right foot—so badly that he could not walk.

History.—He was admitted to another hospital with multiple joint pains, responding only to large doses of salicylate and temporarily only to phenylbutazone. Spa treatment at Droitwich and Bath was helpful. After gold treatment he developed a rash on the legs which was treated with British anti-lewisite and cortisone, and showed improvement from May to November, 1955, after which his condition again deteriorated.

In December, 1955, corticosteroid medication was increased to 20 mg. prednisone per day. He returned to work, but a further relapse occurred in October, 1956. In February, 1957, he developed skin lesions on the soles and toes—spreading to the groin, scalp, and fingers; he became depressed and developed a constant lumbar ache.

There was no relevant family history or previous illnesses (apart from malaria and appendectomy).

Examination.—There was daily fever up to 100·4° F. maximum while on 40 mg. prednisone, but this was controlled by adding salicylate (4 g./day) (see Fig. 1).

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**Fig. 1.** Case 1, showing continuing fever on 40 mg. prednisone/day, falling with other indices promptly on acetyl salicylic acid therapy.
There was florid psoriasis of the scalp, hands, feet, sacrum, groins, and nails, and pain and limitation of movement of the spine (cervical, thoracic, and lumbar), wrists, hips, ankles, toe joints, and metacarpophalangeal, and proximal and terminal interphalangeal joints with ulnar deviation (Figs 2 and 3, and Fig. 4, opposite).

Investigations.—Erythrocyte sedimentation rate (E.S.R.) 108 mm./hr (Westergren); S.C.A.T. 1:128 and 1:64; latex-fixation test + +. No L.E.-cells found. Haematocrit 30 per cent.; W.B.C. 20,000/mm.³, 83 per cent. polymorphs. Serum calcium 10·7 mg. per cent., phosphate as P, 2·3 mg. per cent. Wassermann reaction and Kahn test negative; gonococcal complement-fixation test negative. Urine 10 mg. per cent. albumen only.

Radiology.—There was erosion of bone and loss of cartilage in the carpus, ulnar styloid, metacarpophalangeal, proximal and terminal interphalangeal joints, and acromioclavicular joint. There was much new subperiosteal bone in hands, feet, ankles, elbows, humerus, pelvis, and femora, affecting juxta-articular bone and particularly areas of tendinous insertion: this progressed considerably between November, 1957, and April, 1958. The tendinous periostitis was particularly marked in the proximal phalanges (Fig. 5, opposite) and on the outer aspect of the humerus (Fig. 6, overleaf).
Fig. 4.—Case 1, feet, showing psoriasis clearing over 6 months with keratoderma-like lesions.

Fig. 5.—Case 1, finger, showing erosions, loss of cartilage, and new subperiosteal bone on metacarpal, and proximal and middle phalanges.
Fig. 6.—Case 1, subperiosteal bone increasing over 6 months on right humerus.
New subperiosteal bone was also seen on the bicipital tuberosity of the radius (Fig. 7), the lateral epicondyle of the humerus, the wings of the ileum, the lesser trochanters and adductor tubercle of the femora, and the malleoli (Fig. 8, overleaf).

Fig. 7.—Case 1, new subperiosteal bone on radial tuberosity.
Fig. 8.—Case 1, periosteal bone at adductor tubercle and on malleolus.
With improvement some subchondral sclerosis occurred in the metatarsal heads. There was some costal cartilage ossification but none in the aorta or iliac vessels. The spine showed normal apophyseal and sacro-iliac joints and normal disk spaces, apart from ballooning due to corticosteroid-induced vertebral collapse. Areas of bone or calcium deposition occurred between the gluteal tendons (Fig. 9).

Fig. 9.—Case 1, appearance of periosteal bone on ilium, lesser trochanter, and in glutei over 6 months. Note normal sacro-iliac joints.
The most striking change, however, was seen in the antero-posterior view of the spine (Fig. 10), which showed gross paraspinal ossification on the lateral aspects of the vertebrae. No marked degenerative changes were present, nor did the ossification resemble that of ankylosing spondylitis.

Fig. 10.—Case 1, antero-posterior and lateral views of spine, showing steroid collapse and paraspinal ossification.
The nearest resemblance was to hypertrophic senile ankylosing spondylitis from which it differed in its rapid appearance and its fluffiness and lack of definition, and in being present only on the lateral aspects of the spine (none at all being present anteriorly apart from bridging C4-5-6 (Fig. 11) and a small osteophyte between L4-5). Furthermore, instead of being closely apposed to the bone of the vertebral bodies, as in senile ankylosing spondylitis, this band of new bone appeared to be separated from them by an interval.

Case 2, a man aged 26 years when seen at the Postgraduate Medical School in October, 1964, had developed arthritis 2 years previously, when he had been admitted to Merthyr General Hospital (Mr. Treasure and Dr. Hodgson) with an acute, painful, and hot swelling of the left foot, which prevented him from walking.

History.—A week later he developed crusting erythematous lesions on the feet and later the hands, with crusting under the nails. Similar lesions appeared in the scalp, on the penis, and in the palms. 6 weeks from onset the knees became swollen and painful on movement. There was no relevant family history or previous illnesses.

Examination in 1962.—The left foot was oedematous with tender midtarsal and ankle joints, and fluid was present in both knees. The second metatarso- and proximal interphalangeal joints were swollen and tender. The neck was stiff and painful. He had gingivitis, conical rupioid-like lesions on the palms and soles, and psoriatic lesions over the body and limbs. The fingernails were thick and friable, and the toe nails were lost.

The E.S.R. was 48 mm./hr; serum proteins 5·7 g. per cent. S.C.A.T. 1·8 (negative). Serum uric acid 4 mg. per cent. Serum calcium 8·5 mg. per cent. Wassermann reaction and Kahn test negative; gonococcal complement-fixation test negative. Urethral swab showed Staph. aureus and B-haemolytic streptococcus. A skin biopsy was suggestive of "Reiter's disease".

Treatment with prednisone 30 mg./day and ACTH 15 U./week with local therapy to the skin improved his condition, but it was not possible to reduce the prednisone below 30 mg./day.

Progress.—He was readmitted in May with extensive rash and backache. Treatment was continued with prednisone 30 mg./day and ACTH 40 U./week, with further admissions in August, 1963, and April, 1964, and prednisone dosage varying between 25 and 80 mg./day.

He was referred to Prof. J. Calnan at St. John's Hospital in August, 1964, with a diagnosis of Reiter's syndrome, where he was seen by Dr. Csonka and treated with methotrexate as well as steroids.

He was referred by Dr. E. Cronin to one of us at the Postgraduate Medical School in October, 1964, at which time the main complaint was of pain in the lower back, worse on sitting for any length of time and maximal at about the level of L4.

Examination in 1964.—Besides a psoriasiform eruption over the trunk and arms with pigmentation, there were psoriatic changes in all the nails. The metatarsophalangeal joints were stiff and thickened: the hands showed limitation of wrist extension and of full extension of the fingers. Calcium, phosphate, and alkaline phosphatase normal S.C.A.T. 1·2; antinuclear factor negative, latex-fixation test negative.

Progress.—His condition improved greatly on prednisone and salicylate. Haematocrit rose to 50 per cent. Erythrocyte sedimentation rate fell to 19 mm./hr. He was discharged on April 18, 1958. He left the country in 1958 and was lost to follow-up, taking prednisone 15 mg./day, aspirin 5 g./day, and local applications for the skin condition.

Fig. 11.—Case 1, fluffy anterior ossification in cervical spine.
Radiology.—X-ray films taken in December, 1962, showed Grade 3 erosions in the right sacro-iliac joint, the left being normal as were the vertebrae from T11 to L5. By February, 1963, a small opaque area appeared on the right paraspinal area of T11 and on the left side of T12 (Fig. 12a). By December, 1963, these extended up as far as the midzone of T10 on both sides and as far down as the disk between L2 and 3 on the right (Fig. 12b). They were initially rather fuzzy in appearance, becoming harder later and seemingly occurring in the loose tissue outside the vertebral periosteum and disks, being separated therefrom by a clear space. The apophyseal joints appeared normal. Later films (August, 1964) showed corticosteroid-induced collapse of T1, 3, and 5. The hands and feet showed not only a minimal small erosion affecting the right 5th metatarsophalangeal joint, but a high grade of periosteal overgrowth characteristic of psoriatic flexor tendinitis, affecting the juxta-articular area of the metacarpal and metatarsal bones and the shafts of some of the proximal and middle phalanges in the same digits (Fig. 13, opposite). This progressed further in 1964, as did the changes in the right sacro-iliac joint.

Case 3, a man aged 55 in 1959 when he was first seen by one of us, had had psoriasis for 14 years and polyarthritis for 16 years. He had remained at work over these 21 years up to 1964 with intervals of hospitalization. The spine was said to be affected in 1945 and in 1960 he had been started on corticosteroid therapy.

Examination.—There was classical psoriasis, pitting of the nails, and involvement of numerous joints in the upper

Fig. 12.—Case 2, development of paraspinal ossification between May, 1963, and May, 1964.
and lower limbs including the terminal interphalangeal joints and the spine, movement of which was limited. X-rays showed erosions and periostitis affecting the metacarpal and phalangeal bones. The spine showed a well-defined bridge between L1 and 2 on the left side and less well-defined ossification bridging T12 and L1 on both sides (Fig. 14). The E.S.R. was 4 mm./hr, S.C.A.T. and latex-fixation test negative. Wassermann reaction and Kahn test negative.

Case 4, a man aged 57 in 1963, also had psoriatic arthritis. He had been referred to Dr. B. Gottlieb in April, 1961, complaining of weakness, breathlessness, thirst, Raynaud's phenomenon, haematuria, arthralgia, swelling of the ankles, numbness of the feet, and purpuric spots on the legs. He had had syphilis treated with arsenicals 30 years before.

History.—Admitted to St. Mary Abbots Hospital, he was found to have anaemia (Hb 9 g. per cent.), leucopenia (W.B.C. 2000/mm.³, polymorphs 61, lymphocytes 32, monocytes 3, eosinophils 4), peripheral neuritis, hepatosplenomegaly, E.S.R. 65 mm./hr, arthritis of the wrists, and evidence of nephritis (haematuria, blood urea 158 mg. per cent., variable proteinuria, maximum specific gravity of the urine 1010). Urine sterile. Wassermann reaction and Kahn test negative. Tests for L.E.-cells and antinuclear factor were repeatedly negative, but the
Waaler-Rose and latex-fixation tests for rheumatoid factor were positive. Muscle biopsy showed small focal collections of lymphocytes and eosinophils, mostly perivascular, but no arterial lesions were found. Despite this, a diagnosis of polyarteritis nodosa seemed most likely.

As an out-patient he remained generally unwell, and he was readmitted on March 29, 1962, for further investigations. Blood urea 77 mg. per cent., serum calcium, phosphate, and phosphatase normal. Renal biopsy (Dr. A. M. Joekes) disclosed considerable destruction of glomerular capillaries by eosinophilic material with some intracapillary thromboses. No typical haematoxophil bodies were present, but some areas contained collections of nuclear remnants. It was thought that this represented part of a systemic expression of a sensitization phenomenon and accordingly the patient was treated with betamethasone. However,
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X rays dated November, 1962, showed normal sacroiliac costotransverse, costovertebral, and apophyseal joints. There was paravertebral ossification between the T8 and 9 on the left side, and on both sides of T10 and 11 (Fig. 16a). The lateral view of the spine showed some osteophytosis anteriorly at T8-9-10 and slightly at T11-12. The intervertebral disk spaces were normal. Calcified flecks were seen in the iliac artery and a calcified gland.

Fig. 16.—Case 4 (a) X ray showing paraspinal ossification, taken 7 months before death.
(b) X ray coronal slice post mortem, similarly aligned areas included in Figs 17-19 are marked.

Fig. 17

Fig. 18

Fig. 19
in the right hilus. The pelvis showed periosteal roughening over the pubic rami and over the lesser trochanters at the points of tendon attachment.

The feet showed surface and pocketed erosions of the first, second, and fifth metatarsophalangeal joints, of the first metatarsophalangeal, and of the first terminal interphalangeal joints on both sides. The hand x-ray showed periosteal overgrowth on the left shaft of the right second proximal phalanx and at the interosseous attachments on several digits (Fig. 15).

A small nodule on the right elbow showed merely mild simple bursitis on biopsy. Agglutination tests for rheumatoid factor were repeatedly positive, the sensitized sheep cell agglutination titre (Dr. J. Ball, Manchester) being 1:128; tests for L.E.-cells and for L.E. factor including antinuclear factor (at the Canadian Red Cross Memorial Hospital, Dr. J. Holborow) were negative.

Treatment.—This was continued with prednisolone 17.5 mg. daily and enteric-coated aspirin 5 g. daily. He improved but recovery was delayed by the development of an abscess over the sacrum.

Death.—From April, 1963, he began to complain of retrosternal pain due to coronary thrombosis; this was followed by cardiac failure and death after a further infarction on June 26, 1963.

Post mortem Examination.—There was generalized oedema with psoriasis of the skin, fingernails, and toenails. The brain, meninges, and cranial arteries were normal; there were bilateral pleural effusions with some oedema of the lungs; the pericardium was normal and the heart showed mild left ventricular hypertrophy. There was a 2- to 3-week-old myocardial infarct affecting the anterior wall of the left ventricle and part of the intraventricular septum with an associated mural thrombus due to a 1 cm. partly-organized thrombus 2 cm. from the origin of the left coronary artery. The right coronary artery was mildly atheromatous. The tongue, oesophagus, stomach, and gastrointestinal tract were normal. The liver was congested with some fatty change. The kidneys (right 200 g., left 185 g.) showed normal capsular stripping to reveal a finely granular surface. On section there was some thinning of the cortex and the corticomедullary junction was blurred. The spleen (424 g.) was hard, congested, and moderately enlarged. The lymph nodes and endocrine system were normal.

Microscopy showed widespread myocardial necrosis: there was no sign of healed polyarteritis. The lungs, liver, and spleen showed the changes of chronic heart failure only. The kidney showed patchy fibrosis with alternating areas of tubular dilatation and atrophy: this was associated with severe sclerotic changes in the vessels, with great thickening of the intima, but there was no evidence of past polyarteritic involvement of the arteries. Many glomeruli were sclerosed and some of the obliterated tufts showed the accumulation of fibrinoid eosinophilic material. Thyroid, tongue, midbrain, and sections of voluntary muscle and forearm skin showed no abnormality.

A piece of lumbar spine comprising the bodies and intervertebral disks between T11 and L5 was x-rayed, sliced, and sectioned in a coronal plane (Fig. 16b). Sections taken included:

1. T12, right border, with adjacent disks and a portion of L1 (Fig. 17, opposite);
2. L2, left border, with disks and adjacent edges of L1 and L3 (Fig. 18, overleaf);
3. Disk L4-5, right side with adjacent portions of bodies L4 and 5 (Fig. 19, overleaf).

Figs 17 to 19 illustrate areas of these sections as marked on Fig. 16b.

Fig. 17 shows that the new paraspinal bone is in the loose areolar tissue outside the longitudinal fibres of the periosteum and separated from these by a space, except at one point where there is a small area of fibrocartilage, near which the vessels enter the vertebrae. The new bone is mostly woven bone but remodelling is occurring, with lamellae bone deposition. On the side nearest to the vertebrae, young collagen fibres are undergoing ossification in a highly vascular area (Fig. 18). Over the junction of vertebral body and disk plate, the ossifying band continues over the outer surface of the bounding collagen ligaments. This is also seen well in Fig. 17, but at one place (Fig. 19) the ossifying tissue appears to lie within the outer collagen layers of the annulus, without however, being an outgrowth from the vertebral body as in osteophyosis, of which there is little trace in these sections. In places there is cartilage metaplasia with areas of basophil fibrocartilage, presumably due to minor injury and repair.

Discussion

(1) These four cases are alike in having psoriasis and arthritis. All are males, three middle-aged at the onset of their spinal disease, and all with rapidly developing spinal changes.

(2) Psoriatic arthritis as defined by some (Wright, 1959) would exclude cases with positive rheumatoid factor tests, which are then regarded as having psoriasis plus rheumatoid arthritis, but in view of the finding of rheumatoid factor by immunofluorescent methods in cells of psoriatic arthritis patients (Hollander, Rawson, Restifo, and Lussier, 1964) this may not be a valid distinction. The characteristics of the peripheral arthropathy in the two patients with positive rheumatoid factor were those of psoriatic arthropathy (with involvement of terminal interphalangeal joints, flexor tendon sheaths, small toes, and much periosteal proliferation).

(3) In three of our cases the possibility of Reiter’s syndrome was raised and, indeed, the distinction between Reiter’s syndrome and psoriatic arthropathy may be impossible to make, on either clinical or pathological grounds (Wright and Reed, 1964).

(4) Spondylitis has been seen and described many
Fig. 17.—Case 4, top right side of T12; coronal section showing disk at top right and layer of woven bone towards left margin. Haematoxylin and eosin. × 15.
times in patients with psoriatic arthritis, but it is usually similar radiologically to ankylosing spondylitis, with sacro-iliac involvement and what Forestier has called “syndesmophytes” (Fletcher and Rose, 1955; Graber-Duvernay, 1957; Wright, 1957) or alternatively affecting only the sacro-iliac joints (Dixon and Lience, 1961) or cervical spine (Kaplan, Plotz, Nathanson, and Frank, 1963; Estrin, 1963).

Radiological Aspects.—The only reference we have been able to discover to a similar case is one briefly mentioned in discussion by Bunim (1962). This patient was a man aged 56 with psoriasis and arthritis and radiological paraspinal ossifications (illustrated) similar to those described above; the presence of rheumatoid factor is not mentioned.

These changes must be distinguished from:

(a) Osteophytosis (degenerative disease of the spine) and from what is probably a rarer variant of this almost universal senile change, the so-called “senile ankylosing hyperostosis” of the spine (Forestier and Rotes-Querol, 1950; well discussed by Ott, 1953; Smith, Pugh, and Polley, 1955; Aufdermaur, 1955; Aufermann, 1955; Rubens-Duval, Villiaume, and Lubetzki, 1961; Vignon, Durant, Pansu, Bertrand, and Truchot, 1961) on grounds listed in describing Case 1.

(b) They are also distinct from the changes of ankylosing spondylitis, even those atypical cases occurring in middle age where, as de Sèze, Lacapère, and Amourou (1952) have stressed, the changes look not unlike the osteophytes of degenerative disease: similarly the ossifications in fluorosis of the spine (Agate, Hunter, and Perry, 1949; Shorttt, McBattt, Barnard, and Mannadi Nayat, 1937) are really abnormal osteophytes, denser and more pronounced but similar in kind to the senile type.

Four other rare types of ossification occurring near the spine should also be mentioned and differentiated:

(c) Sharp (1954) described heredo-familial vascular and articular calcification: in this family calcification occurred in the intervertebral disks, with osteophytosis and later ossification of anterior and inter-spinous ligaments quite unlike the present picture, with multiple peripheral para-articular calcification, arterial calcification, etc.

(d) Paraplegic or post-polio-myelitic ossification of a myositis ossificans nature (Freiberg, 1952; McNeur, 1954; Lodge, 1956; Coste, Galmithe, and Rondot, 1957; Larsen and Wright, 1957; Jacobs, 1962) usually around the hip joints.

(e) The ossification affecting tendon insertions in hypophosphataemia or vitamin D resistant rickets

Fig. 18.—Case 4, left side of L2; coronal section showing disk L2-3 at bottom left and layer of new bone down right-hand margin. Haematoxylin and eosin. × 15.
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(Steinbach, Kolb, and Crane, 1959; Steinbach and Noetzli, 1964), sometimes apparently affecting the spine and resembling ankylosing spondylitis (Blackard, Robinson, and White, 1962, and post mortem report, 1963; Stanbury, personal communication; Stanbury, Popert, and Ball, 1959).

(f) Ossification affecting the ligaments of the lumbar spine and tendinous insertions described in two cases of idiopathic hypoparathyroidism without radiological lesions of the sacro-iliac joints (Salvesen and Böe, 1953; Gibberd, 1965).

Pathological Aspects.—What is the nature of these changes? There is little evidence that they are spatially related to vertebral collapse, although rapid osteoporosis must make calcium available locally. There is no evidence of an inflammatory
process such as may occur in yaws or luetic spondylitis (Bingold, 1962) (despite an occasional area of necrosis and bleb formation probably agonal in origin in one of the sections of Case 4). The most striking parallelism is observed in these patients between the paraspinous ossification and the degree of periostitis occurring at sites of tendon and ligamentous pull on bone. The latter feature is characteristic of psoriatic arthritis although it occurs also to a lesser extent in rheumatoid arthritis: inflammatory oedema stretches the periosteal membrane to form new bone (Bywaters, 1948). This, we conjecture, is the same process at work in the paraspinous areas. The new bone is woven as in subperiosteal new bone formation and later undergoes lamellar transformation. The interesting feature is that it appears separated from the layer of periostium covering the vertebral bodies. Does it occur at the site of muscle insertion into the paraspinous ligaments? Our specimen is not extensive enough to decide this, but it appears probable.

Summary and Conclusions

Four males with psoriasis and polyarthritis on corticosteroid treatment are described who showed extensive paraspinous ossification in the lumbar and thoracic areas differing from that seen in ankylosing spondylitis and in osteophytosis; two had positive rheumatoid factor tests. The sacro-iliaic and apophyseal joints appeared unaffected. In one case the new woven bone was shown post mortem to occur at some distance from the vertebral body; its structure was similar to subperiosteal new bone, which occurred in all these patients peripherally in the neighbourhood of tendon and ligament pull. The condition can be differentiated from ankylosing spondylitis, senile ankylosing hyperostosis of the spine, and other rarer conditions.

We are most grateful to Prof. J. Calnan, Dr. E. Cronin, and Dr. Hodgson who referred and allowed us to use their data on Case 3, to Prof. Steiner and Dr. Gough for the radiographs of Cases 1 and 2, to Dr. B. Gottlieb and Dr. M. Gillespie who allowed us to use their data on Case 4, and to Mr. Fiske for the x-ray reproductions and photomicrographs.

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Discussion

Dr. O. Savage (London): The characteristic thing here is the wide separation of these calcified and ossified lesions from the bone.

Dr. V. Wright (Leeds): These are fascinating cases. I was interested in the reference made to the possibility of Reiter’s syndrome in two of the cases. In the first the nail lesions seemed to be more like those of Reiter's disease than psoriatic arthritis—the whole nail was involved, not just the distal part. Do you have any information on the genito-urinary status of this patient?

Prof. Bywaters: This gave rise to no particular alarm or comment. I agree that it is often difficult to distin—
guish between these two conditions, and it may be ultimately that they cannot be differentiated.

Dr. K. N. Lloyd (Cardiff): Nobody at Cardiff thought that the second case was very typical of psoriasis, at any rate in the early stages. We all thought he had Reiter's syndrome, because he had urethritis, conjunctivitis, arthritis, and keratodermia. The cervical spine shows a similar picture to one of the other cases, and a later picture shows the lesion creeping higher up the lumbar spine to the dorsal vertebrae. The patient's backache was episodic and fresh areas of calcification would follow each of these episodes. Recently the patient has been on methotrexate—it has cleared up all the skin lesions, he has no more backache, and the spine is now perfectly mobile.

Prof. J. H. Kellgren (Manchester): I am particularly pleased to see these cases because for a long time we have been impressed by the fact that in psoriasis the spinal ossification is much further out than in spondylitis. In Sharp's thesis he also had an illustration showing ossification in both the anulus and the ligaments in the same patient with a gap between the two. The ossification in the ligaments seems to be one of the characteristics of the psoriatic spine, though I have not always seen it in this extreme form.

Dr. D. Felix-Davies (Birmingham): Do we have any information on the family histories of Waaler-Rose positivity, rheumatoid arthritis, or psoriasis?

Dr. Dixon: In the patient who came to autopsy there were typical rheumatoid erosions of the hands and feet on x ray. The sacro-iliac joints were normal radiologically and histologically so this is not just a variation of what we regard as psoriatic spondylitis. Family history and a past history of venereal disease were completely negative, though the rash was initially diagnosed by everybody, including the dermatologists, as keratodermia. It later progressed to typical psoriasis, and I have ceased to try and differentiate the two.

Dr. M. Thompson (Newcastle): This fills in a lot of information previously missing. Do you have any information about serum levels of calcium, phosphate, and alkaline phosphatase? Hypoparathyroidism has been reported as an occasional clinical association.

Prof. Bywaters: Cases 1, 2, and 4 had erosions. Family histories were negative, though defective in the first case. Calcium, phosphate, and alkaline phosphatase levels were done in Cases 1, 2, and 4, and were normal except for a slight rise in alkaline phosphatase in Case 1.

REFERENCE


Ossification paravertébrale dans l'arthrite psoriasique

RéSUMé

On décrit quatre cas mâles atteints de psoriasis et de polyarthrite, traités par des corticostéroïdes. Ils accusaient une ossification paravertébrale étendue dans la région lombaire et thoracique, différente de celle que l'on voit dans la spondylarthrite ankylosante et dans l'ostéophyose. Chez deux d'entre eux on a démontré la présence du facteur rhumatoïde. Les articulations apophysaires et sacro-iliaques ne semblaient pas être affectées. Dans un cas on a montré à l'autopsie que la formation osseuse nouvelle se produisait à une certaine distance du corps vertébral; sa structure est similaire à celle de l'os nouveau sous-périostique, qui se formait chez tous ces malades à la périphérie, au voisinage des tendons et des attaches (ligamentaires). Ces lésions peuvent être différenciées de celles de la spondylarthrite ankylosante, de l'hyperostose sénile ankylosante de l'épine et des autres lésions plus rares.

Osificación paravertebral en la artritis psoriásica

SUMARIO

Se describen cuatro enfermos con psoriasis y poliartritis, tratados con corticosteroides, que acusaban una osificación paravertebral extensa en las regiones lumbar y torácica, diferente de la observada en la espondilartitis anquilosante y en la osteoporosis. En dos de ellos los tests para el factor reumatoide fueron positivos. Las articulaciones apofisaria y sacro-iliaica no parecían ser afectadas. En un caso se vió a la necropsia que el hueso nuevo se formaba a cierta distancia del cuerpo vertebral; su estructura se parece a la del hueso nuevo subperióstico, que se producía en todos estos enfermos en la periferia, cerca de los tendones y de las inserciones ligamentosas. Se pueden diferenciar estas lesiones de las de la espondilartritis anquilosante, de la hiperostosis senil anquilosante de la espina y de otras, más raras lesiones.
Paravertebral ossification in psoriatic arthritis.

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