TRANSIENT OSTEOPOROSIS OF THE HIP*
A NONTRAUMATIC VARIETY OF SÜDECK'S ATROPHY

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This paper describes ten cases of transient osteoporosis of the hip encountered in our personal practice over a 5-year period. This condition is considered to be a variant of Südeck-Lerich's dystrophy located in the hip joint. All these patients came for consultation without diagnosis or with a previous diagnosis of tuberculosis, coxitis, or cancer.

The ten cases satisfied the following criteria:

- (1) They were seen and managed throughout by the same clinician.
- (2) There was radiographic evidence of localized osteoporosis, most marked in the femoral head.

*Given at a meeting of the Heberden Society in November, 1967.
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- (3) The clinical presentation was marked by the rapid development of disability, limp, and pain on movement.
- (4) The course was constant, the greatest disability occurring in 2nd to 3rd month being invariably followed by recovery.
- (5) The permanence of recovery was assessed by re-viewing all the cases except one after an average interval of 2 years.

It did not seem justifiable, since this self-limiting lesion has characteristic x-ray appearances, to perform a bone biopsy of the femoral neck.

Case Reports

Details of the ten patients are given in the Table and two typical cases are fully described below.

TABLE
FINDINGS IN TEN MALE CASES OF TRANSIENT OSTEOPOROSIS OF THE HIP

Clinical Characteristics			Case No.										Total or Average
			1	2	3	4	5	6	7	8	9	10	
Side affected	..	..	L	R	L	R	L	R	L/R	R	R/L	L/R	
Age (yrs)	..	..	45	40	62	38	36	52	38/45	49	36/36	29/41	42
Overactive	..	..	?	Neurosis	?	+	+	+	—	—	?	+	?
Precipitating Factor	..	..	0	0	0	Muscular exertion	Muscular exertion	Muscular exertion	0	0	0	Muscular exertion	
Onset	..	..	Pro-gressive	Sud-den	Sud-den	Pro-gressive	Pro-gressive	Pro-gressive	Pro-gressive	Sud-den	Sud-den	Sud-den	
Disability and Limp	..	..	+	+	+	+	+	+	+	+	+	+	+
Limitation of Movement	..	..	+	+	+	+	++	+	±	+	+	+	+
Radiological Signs	Normal in 1st month	?	?	+	+	?	?	—	?	+	+	+	4/5
	Rarefaction	++	++	+	++	++	++	+	++	++	++	++	++
	Blurring	++	++	+	++	++	++	++	++	++	++	++	++
	Mottling	+	+	++	+	—	—	—	+	+	+	+	7/10
Erythrocyte Sedimentation Rate (mm./1 hr.)			3	4	13	1	2	4	7	9	7	3	Normal
Treatment	Lumber Sympathetic Block		+	+		+					+	+	
	Steroids	Intra-articular Oral	+		+	+	+	+		+	+	+	
	Time of Starting (mth)		4th	2nd	1st	2nd	3rd	2nd		2nd	1st	3rd	3rd
Duration of Disease (mths)	..		5	4	3	5	6	4	2	4	2	4	4
Follow-up (yrs)	..		3	5		3	1	1	2	2	1	1	2

Case 9, a 36-year-old-man, had idiopathic transient osteoporosis of each hip with a 9-months' interval; he showed limping and bone rarefaction with recovery in 2 months.

FIRST EPISODE

He had increasing pain on walking in the right knee in January, 1964, with limping from the 3rd day onwards. There was no recent precipitating factor, but 5 months previously a blow on the right knee had caused a haematoma. His general health was normal.

Examination.—On the 15th day there was atrophy of the gluteal and quadriceps muscles and moderate restriction of hip movements, particularly rotation and abduction. Radiography (29/1/64) showed mottled decalcification of the entire femoral head, which was "ghostlike" in outline, the acetabulum being less affected (Fig. 1). ESR 7 mm./hr; white cells 10,680; latex test negative.

Fig. 1.—Case 9, January, 1964. Transient osteoporosis of the right hip at the beginning of the second month, showing mottled rarefaction of the femoral head.

Progress.—The pain and limp disappeared after 3 weeks' treatment with severe lumbar sympathetic blocks, prednisone 24 mg. reducing to 8 mg. daily, vaso-regulator drugs, and physiotherapy. At follow-up in July, 1964, the hip was normal and pain-free, muscle wasting was no longer present, and recalcification was complete (Fig. 2).

SECOND EPISODE

About 2 months later pain developed in the left knee followed by limping without obvious cause. The patient did not delay in seeking advice; there was no muscle wasting, the mobility of the hip was almost normal, and x rays (9/10/64) after 3 weeks were still normal.

Treatment.—He was given three lumbar sympathetic blocks and dexamethasone and pentamethonium orally; the pain disappeared after 10 days but minor muscle wasting was noted in the 2nd month.

Fig. 2.—The same patient 6 months later (July, 1964). The density of the femoral head has returned to normal.

Progress.—Radiography (27/11/64) showed osteoporosis, though the patient had been symptom-free for a month (Fig. 3). At follow-up in March, 1965, clinical and radiological recovery were complete.

Fig. 3.—The same patient, November, 1964. Transient osteoporosis of the left hip appeared 9 months after that in the right hip. This x ray taken in the 3rd month shows typical rarefaction of the femoral head and neck though pain and limp resolved more than a month previously.

Case 10, a man aged 41, had transient osteoporosis in the hip for 3 months in 1954, and in the right hip for 4 months in 1965-1966, with severe limping and typical rarefaction in the 2nd month.

In November, 1965, the patient had taken a case weighing 44 lb. (20 kg.) out of his car and had felt a sudden pain in the low back which soon spread to the right buttock and groin. By the 7th day this had extended to the knee and outer aspect of the thigh and lower leg. Though suggestive of sciatica due to irritation of the 5th lumbar nerve-root, the pain was not typical, since there was also, from the 2nd day, a considerable limp and positive Trendelenberg sign. The patient had to stop work from November 30, at which time the *x* rays were still normal. Pain and limping were exacerbated by fatigue and relieved by rest. The patient was rather obese, active, hard-working, and emotional; he had suffered from very similar limping, accompanied by pain from the left groin to the knee in 1954 after a period of worry and overwork, and recovery had then been rapid from the 4th month without special treatment.

Examination (7/1/66).—He had a striking limp requiring the use of two sticks; knees normal; Lasègue's test negative; spine normal; right hip very painful on movement, with limitation of lateral rotation, abduction, and adduction. There was pain on pressure over the pubis, right inguinal ligament, and greater trochanter. On 15/1/66 (7th week) *x* rays showed mottled osteoporosis; the outline of the femoral head was indistinct except inferiorly, but the acetabulum was only slightly involved; the joint-space was intact (Fig. 4a). The left hip (Fig. 4b), the knees, and the feet were normal. ESR 3 mm./hr; blood picture normal; Waler-Rose test negative.

Progress.—Treatment consisted of 50 mg. meprobamate and 75 mg. chlorpromazine daily and lumbar sympathetic block twice weekly. 3 weeks later there was considerable improvement and by the end of January the patient could stand for several seconds on the right foot alone and was able to discard his stick. After a recurrence of pain and disability without obvious cause for a week at the end of February, recovery continued through March and he returned to work in April. He could now walk several kilometres without pain or limp. At follow-up in November, 1967, the hip was normal clinically and radiographically.

Review of Findings in the Ten Patients

(1) Constitutional Factors

(a) *Sex.*—All the patients were men.

(b) *Age.*—Including the age at onset when the first side was involved in alternating forms, the ages ranged from 29 to 62 years (average 42).

(c) *Background and Associated Conditions.*—There was a moderate excess of weight in three cases. It is possible that intervertebral disk degeneration may have encouraged the onset of the disease; three of our ten cases had suffered from sciatica, two some long time previously (Cases 5 and 6) and one immediately beforehand (Case 10).

Figs 4a and b.—Case 10. Typical appearance of transient osteoporosis of the right hip in the second month, showing marked rarefaction of the femoral head with almost complete obliteration of its upper border (b—contralateral hip for comparison).

(d) *Psychological Factors*.—Five of the patients were hyperactive individuals, devoted to their jobs and often working 10 to 14 hours a day in business or in physical labour rather than at intellectual pursuits. One of these (Case 3), from being previously hyperactive in this way, had not been able to work for years because of a severe anxiety neurosis. The other four were also of an anxious temperament.

(2) Precipitating Factors

In six cases no precipitating factor could be found, but there were four in which the osteoporosis of the hip might have been secondary to muscle exertion: one lumbar (Case 10) and three in the lower limb, of which two involved repetitive extension of the knee and hip (Cases 5 and 6) and one (Case 4) a sudden attempt to retain balance.

(3) Laterality

The right hip was affected in four cases and left hip in three. There were also three "alternating" cases, in which the two hips were affected consecutively at intervals of 7 years, 6 months, and 12 years (Cases 7, 9, and 10). Such alternating involvement has been known to occur at the classic sites of Südeck's atrophy, though much more rarely.

(4) Signs and Symptoms

(i) *Pain*.—In half the cases pain developed suddenly or rapidly (reaching a maximum in a few days). It increased for 2 to 4 weeks before becoming steady and in nearly every case was of a "mechanical" nature, being brought on by standing, walking, or movement, and disappearing at rest. In two cases, however, there was also pain at night: in Case 1 this was moderate and lasted for a few weeks only, but in Case 4 it was so severe that the patient could sleep only in a sitting position.

The distribution of the pain was noteworthy in that it was felt only at the knee in half the cases. Such referred pain is regarded as classical in hip disease though it is in fact rather rare, being found in only 10 per cent. of cases of coxarthrosis. In the other patients, pain in the groin spreading to the thigh and knee indicated hip involvement from the outset.

(ii) *Difficulty in Standing*.—One of the most striking features of transient osteoporosis of the hip is the discrepancy between *disability*, which is always very marked, and *pain*, which is only moderate. Questioned on this point, patients testify that they are troubled more by the limp than by the pain and experience when standing a peculiar sensation of

weakness or instability on the affected side. In walking, weight cannot be taken on the limb for the period of a normal step; the pace is shortened to a fraction of a second and the load diminished by different manoeuvres, such as a Trendelenberg-type limp (in which the trunk is bent towards the side of the affected hip at each step) and the use of sticks. Nearly every patient had to use two sticks at some time, particularly during the second month of the disease.

(iii) Restriction of Movement

(a) Where pain was felt only in the knee, this joint was normal, without stiffness or pain at the extremes of range and with a normal x ray.

(b) Pain and restriction of hip movements were constant, but moderate and dissociated. Flexion was often normal or reduced by only 20°; 110° was the minimum range. Rotation and abduction were more restricted, with impairment of 30–60 per cent., sometimes less. Pain at the extremes of range was rarely acute and was not felt uniformly; flexion, rotation, and abduction in semi-flexion were often the only movements exciting pain. Such pain, however, was very significant, for it was present in every case, exactly corresponding to the pain felt spontaneously by the patient.

(iv) *Other Features* included tenderness on pressure over the bone. This is an interesting sign indicating the extent of the local osteoporosis. In the three cases in which it was sought (Cases 3, 5, and 10), tenderness was uniform over the ilio-pubic ramus and at the greater trochanter.

(5) Radiographic Features

It should be emphasized that the characteristic radiographical appearances do not develop until 3 to 6 weeks after the onset of pain. Out of five cases x rayed during the first month, four yielded normal or indeterminate films and only one (Case 7) showed evidence of rarefaction. In every case, however, typical radiographic features were found during the second month of the disease. It is essential to compare the films of the two sides section by section. The characteristic appearances include: (a) local rarefaction of bone; (b) blurring of the outline of the femoral head; (c) mottled texture of the femoral head. Two negative signs (d) may also be adduced: there is no narrowing of the joint-space and no subchondral bony cavitation.

(a) *Local Bony Rarefaction*.—This is always most marked at the femoral head (Fig. 4a) which is affected throughout, the marginal supero-lateral and

infero-medial zones, which are normally rather translucent, becoming particularly clear. Increased translucency is usually less obvious in the femoral neck and around the acetabulum, but these sites are also affected in severe forms, particularly the ischio-pubic ramus.

(b) *Blurring of the Outline of the Femoral Head.*—This was present in every case, sometimes moderate (Figs 1 and 3) sometimes disturbingly severe (Fig. 4a). Almost complete obliteration of the upper border of the head suggests the possibility of arthritis and tomography is then desirable. This sign is the more remarkable in view of the fact that the roof of the acetabulum retains its normal density.

(c) *Coarse Mottled Bony Texture.*—This was not always found. It was absent in three cases, the osteoporosis being uniform, and moderate in all the others except Case 3. Rapidly developing osteoporosis may uncover patchy mottling of thickening trabeculae (Fig. 1). This was the predominating feature in Case 3, in which rarefaction and blurring of the outline of the head were moderate.

(d) *Important Negative Signs.*—There was no narrowing of the joint-space, no subchondral bony changes (even in tomograms), and no local ulceration to the outline of the femoral head. In the three cases in which evidence was specifically sought (Cases 4, 9, and 10), the knee and ankle were unaffected radiographically and were also clinically pain-free. The disorder thus consists of osteoporosis localized to the hip alone.

(6) Other Investigations

There were no special or abnormal pathological findings. The erythrocyte sedimentation rate and blood picture were normal in all ten patients with the following exceptions:

Case 3	(aged 62 years)	ESR 13 mm./1 hr.
Case 2	} serum uric acid	{ 50 mg. per cent.
Case 6		
Case 7		
		{ 80 mg. per cent.
		{ 57 mg. per cent.

The Waaler-Rose and latex-fixation tests were negative.

(7) Progress

In all cases the course of the transient osteoporosis fell into three phases:

(i) *Increasing Deterioration.*—This usually lasted a month, sometimes only a fortnight (Cases 7 and 9). Even when the onset of pain had been abrupt or rapid, the limp and disability were not maximal at the onset but increased steadily for some 3 to 6 weeks,

during which the patient was obliged to take first to one stick, then to two. During this phase radiography almost always remained normal.

(ii) *Full Development.*—In this stage difficulty in standing and pain reached their maximum, and they remained stationary throughout the 2nd month or thereabouts from the 2nd to 6th week in the shorter forms, *i.e.* Cases 7 and 9. This phase lasted about a month, during which the typical radiographic findings appeared; only in Case 3 was clear evidence of osteoporosis delayed until the 3rd month.

(iii) *Regression.*—Clinical improvement began towards the end of the 2nd or at the beginning of the 3rd month in eight cases, and a little earlier—the 6th week—in Cases 7 and 9. Recovery was often dissociated, pain being the first symptom to show improvement, and standing becoming easier 2 to 3 weeks later. The duration of the third phase was more variable than that of the others; it lasted for from 2 weeks in the shorter forms of the disorder to as long as 4 months.

Improvement usually continued steadily once it had begun, but in two cases there was partial relapse with transient exacerbation, one in the 3rd month (Case 10) and one in the 5th (Case 5). Such relapse is no cause for concern and lasted only 1 to 2 weeks in these patients.

Improvement in the radiographic appearances followed more slowly and usually began about the 3rd or 4th month. The osteoporosis was often still apparent even when recovery was clinically complete, which is a classic feature of Südeck's atrophy, but recovery was complete radiologically between the 4th and 7th months, earlier in the shorter forms (Fig. 2).

The course of the disorder might occupy a minimum of 2 months or a maximum of 6 to 7 months; the average being 4 months, which is much less than in the usual cases of Südeck's syndrome.

There have been no after-effects. Nine of our ten patients were followed-up after an average of 2 years and none was found with any impairment of hip function. The only future hazard appeared to lie in the possible occurrence of an identical condition in the contralateral hip several months or years later.

(8) Treatment

As in other forms of Südeck's atrophy, it is difficult to assess the effects of treatment in a self-limiting lesion, or to be sure whether treatment accelerates recovery. One patient (Case 7) who was only given simple analgesics was one of the two who were quickest to recover (2 months). The other (Case 9, an alternating form) was treated from the 15th day

of the second attack, and lost his symptoms a month sooner than in his first episode.

It is therefore not easy to be definite on this point. In practice it is difficult, if only on psychological grounds, to refrain from offering some form of treatment; energetic individuals reduced to semi-invalidism in a few weeks are very distressed and require the support of some form of active therapy.

The patients in this series received various types of therapy including:

- (a) Homolateral lumbar sympathetic block, using 15-20 ml. procaine 1 per cent. at first three times, then twice weekly.
- (b) Oral corticosteroids, using 30 mg. deltacortisone daily for the first fortnight, reducing to 25-20 mg., then 15-10 mg. for 3 to 6 weeks in all.
- (c) Local intra-articular injection of corticosteroids; this seemed less effective, though it appeared to be helpful in Case 3.
- (d) Vasoregulator drugs, such as pentamethonium (600 mg. daily) or hydergine (5 mg. daily). These were not given alone.

That treatment should begin early is possibly more important than its exact nature. As the Table shows, with the exception of Case 7, those patients treated late took the longest to recover.

Cases 1 and 5: Treatment started in the 4th to 6th month, recovery in 5 to 6 months;

Cases 2, 6, 8, 10: Treatment started in the 2nd month, recovery in 4 months.

Cases 3 and 9: Treatment started in the 1st month, recovery more rapid.

One other factor is important, namely muscular activity. In Case 1, the patient was kept in bed for several weeks, and recovery took 5 months. Walking, however painful, must be encouraged, and graduated rehabilitation must be instituted as soon as possible (Case 9).

Finally, analgesics and sedatives are symptomatically useful.

Discussion

(1) Differential Diagnosis

At least four other disorders may simulate Südeck's atrophy of the hip clinically and radiographically: tuberculous arthritis, malignant metastases in the upper femur, disuse atrophy, and the demineralizing variety of synovial chondromatosis.

(a) *Tuberculosis of the Hip*.—Personal experience of this error was gained in the following case.

A woman aged 62 had increasing pain in the left groin and knee from July, 1962; when seen in December, 1962, she had only moderate pain but a very gross limp and

difficulty in standing. Stiffness was severe, flexion being limited to 70°, and other movements nil. Radiographically the hip was normally dense in September, but in December there was a diffuse mottled osteoporosis with blurring of the upper border of the femoral head, without narrowing of the joint-space. The latter feature was particularly deceptive. However, the clinical context favoured tuberculosis: a history of recurrent pleurisy from 16 to 30 years of age and recurrent erythema nodosum for 3 years with febrile episodes up to 39°-40°C. The erythrocyte sedimentation rate, however, was normal, 7-18 mm./hr.

Finally, in March, 1963, there appeared narrowing of the joint-space (Fig. 5) and in May a lymph node biopsy was positive for tuberculosis.

Fig. 5.—Tuberculosis of the hip. Narrowing of the space is apparent supero-medially and confusion with transient osteoporosis is no longer possible.

Thus, in the early months, this particular form of tuberculosis of the hip did resemble Südeck's transient osteoporosis, but the distinguishing factor was the severity of the stiffness in relation to the length of history. None of our ten patients showed anything so severe by the 6th month of their attack.

(b) *Malignant Upper Femoral Metastasis*.—This is usually readily recognized; the pain is permanent and the stiffness severe, and osteoporosis is not homogeneous or finely patterned but takes the form of large osteolytic plaques distributed diffusely in the femoral neck and trochanter (Fig. 6). However, different appearances are possible in some instances and the picture may be deceptive for some months. The most useful differential features are the more marked stiffness and the preservation of the outline

Fig. 6.—Malignant metastasis of the upper femur. The sharp outline of the femoral head is well-preserved while rarefaction extends down to the neck and trochanter.

of the femoral head, which is not blurred as in transient osteoporosis.

(c) *Disuse Atrophy*.—This is rare in the hip joint but may result from an unrecognized tumour or osteitis of the femoral shaft; x-ray examination limited to the pelvis in such cases will show only rarefaction of the hip. The shaft of the femur must also be examined, clinically at least, before making a definite diagnosis of transient osteoporosis.

(d) *Demineralizing Synovial Chondromatosis of the Hip*.—This condition recently described by Cayla, Chaouat, Labrousse, and Coste (1965) is marked by osteoporosis without narrowing of the joint space. However, the patients are young, the stiffness more severe, and the clinical course is much longer than in transient osteoporosis. Only by contrast arthrography can the presence of the multiple foreign bodies be demonstrated (Fig. 7).

In addition to the above, Curtiss and Kincaid (1959) reported three cases of osteoporosis of the hip in women at the end of pregnancy. However, the first presented with a spontaneous fracture of the femoral neck and the third did not show a convincing increase in translucency. Their second patient presented a picture rather similar to ours; but whether this was the same condition or one peculiar to pregnant women is impossible to say on the evidence.

Fig. 7.—Decalcifying form of synovial chondromatosis of the hip; only contrast arthrography shows the foreign bodies.

(2) Aetiology

The question arises whether the condition described may be something other than a coxo-femoral variety of Südeck's atrophy.

The only plausible alternative seems to be that of a transient inflammatory arthritis, with synovitis causing an increased vascularity sufficient to lead to osteoporosis. But this hypothesis is inconsistent with what we know about inflammatory coxitis (Lequesne and Forestier, 1961). The pain has a different rhythm and is worse at night and in the early morning, stiffness becomes severe much more quickly, narrowing of the joint space is usually present, and the clinical course is much longer. It is true that subacute monarticular synovitis does occur, taking 3 to 4 months to recover, but this does not last long enough to cause a comparable degree of osteoporosis.

There is also the possibility of a capsulitis of the hip with osteoporosis secondary to inactivity. But the capsulitis described by Caroit, Djian, Hubault, Normandin, and de Sèze (1963) is very different; it is marked by severe stiffness and lasts two or three times as long as in our cases. Furthermore, the arthrography in our Case 3 was normal.

The arguments favouring the diagnosis of Südeck's atrophy in the present cases are more numerous and more convincing:

(a) The observed symptoms and clinical course are comparable with those occurring in Südeck's atrophy at the knee and foot. There is a similar

rapid onset of difficulty in standing accompanied by only moderate pain, the same striking limp, the same mottled osteoporosis without narrowing of the joint space, the same absence of any abnormalities of clinical pathology, and the same recovery over a similar period—3 to 9 months for the classical forms of Südeck's atrophy in the lower limb (Lequesne, Harif, and de Sèze, 1963).

(b) "Reflex" forms of transient osteoporosis of the hip are precisely comparable in aetiology with those at the knee and foot. One such case was seen a month after a hip injury not treated by immobilization, and the subsequent history was identical with that of our ten cases. Together with A. Hubault, working in the clinic of Professor de Sèze we noted a similar case secondary to herpes zoster, both hip and knee being affected.

(c) Südeck's atrophy is known in multifocal forms: spread of a painless reflex osteoporosis of the knee to involve the hip (Coste, Piguet, and Cayla, 1956); simultaneous osteoporosis of hip and knee (Gougeon, Moreau-Hottin, Riera, and Riera, 1965); trifocal forms affecting hip, knee, and foot, as in four cases reported by Lequesne and others (1963). It therefore seems that every necessary intermediate condition exists to link idiopathic transient osteoporosis confined to the hip, as reported here, with the forms of Südeck's atrophy already recognized.

Summary

Ten cases are reported of idiopathic transient osteoporosis localized to the hip, a hitherto unrecognized variety of Südeck's atrophy.

The condition was characterized by pain in the knee or at the groin with a disproportionately severe limp and difficulty in standing of rapid onset, so that one or two sticks were needed after a month. Movement of the hip was painful, but not greatly restricted.

Characteristic radiographic findings appeared in

the second month; uniform or mottled osteoporosis, most marked in the femoral head, with blurring of the upper border of the head. The knees and feet were unaffected.

Recovery began in the 2nd or 3rd month and was complete in 3 to 6 months (average 4 months).

The patients were all men between 30 and 60 years of age (average 42). In four cases a strain appeared to be the precipitating factor, and in six there was no obvious cause; in no case was there any direct injury to the hip.

Involvement of the opposite side (alternating variety) occurred in three of the ten cases.

DISCUSSION

DR. F. COSTE (Paris): Dr. Lequesne rightly describes idiopathic decalcification of the hip as being related to the reflex dystrophic arthropathies of other joints. I first saw this rare syndrome 30 years ago in a 30-year-old man who, after a forced march, felt pain and stiffness in the left hip. Films showed diffuse decalcification of the knee joint without loss of cartilage. The lack of inflammation, infection, or other abnormalities led me to the diagnosis of painful osteoporosis due to mechanical factors. The patient rested in bed for 2 months and then recovered, with total recalcification of the hip. During the war I saw analogous cases but have seen none since. Hunder and Kelly (1967) reported eight patients who recovered in 2 to 6 months, in whom serial articular biopsy showed necrosis, resorption, and later new bone formation, with no infection or inflammatory reaction. Biopsy is unnecessary since the diagnosis is easy. The prognosis is good. In our latest case, a man aged 40, there may be a predisposing factor. This patient has osteogenesis imperfecta, and we wondered if a microfracture of the femoral head might have provoked the decalcification of the hip, but tomograms failed to reveal this. It would be interesting to find out if a *forme fruste* of this disease or other causes of osseous fragility are latent when primary decalcification of the hip occurs. Differential diagnosis must eliminate infections, inflammatory coxitis, cancer, and the purely decalcifying form of chondromatosis of the hip.

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Ostéoporose transitoire de la hanche

RÉSUMÉ

On rapporte les observations de dix hommes atteints d'ostéoporose idiopathique transitoire localisée à la hanche, variété jusqu'à présent méconnue de l'atrophie de Südeck.

Cette condition est caractérisée par une douleur du genou ou de l'aîne, un boîtement hors de proportion, une difficulté pour se tenir debout survenant rapidement, si bien que deux cannes sont nécessaires au bout d'un mois. Les mouvements de la hanche sont douloureux mais peu réduits.

L'aspect radiologique caractéristique apparaît au cours du deuxième mois: une ostéoporose uniforme ou marbrée, plus marquée dans la tête fémorale, avec effacement du rebord supérieur de la tête. Les genoux et les pieds ne sont pas affectés.

La guérison commence vers le deuxième ou le troisième mois et est complète au bout de 3 à 6 mois (4 mois en moyenne).

L'âge de tous les malades était compris entre 30 et 60 ans (42 ans en moyenne). Dans quatre cas le surmenage sembla déclencher la maladie; dans six autres cas on ne trouva pas de cause apparente; dans aucun cas il n'y eut de traumatisme direct de la hanche.

La lésion du coté opposé (variété alternante) survint dans trois cas sur dix.

Osteoporosis transitoria de la cadera

SUMARIO

Se relatan las observaciones de diez casos de osteoporosis idiopática transitoria localizada en la cadera, tratándose en todos los casos de una variedad desconocida hasta la fecha de la atrofia de Südeck.

Esta condición se caracteriza por un dolor en la rodilla y la ingle, con una cojera desproporcionadamente grave y dificultad de estar de pie de comienzo rápido, de manera que el enfermo necesita dos bastones al cabo de un mes. Los movimientos de la cadera son dolorosos pero poco reducidos.

El aspecto radiológico característico aparece durante el segundo mes: una osteoporosis uniforme o abigarrada, más pronunciada en la cabeza femoral, con borradura de su borde superior.

El restablecimiento empieza durante el segundo o tercer mes y es completo a los tres a seis meses (un promedio de 4 meses).

Todos los enfermos fueron hombres de 30 a 60 años (un promedio de 42 años). En cuatro casos un esfuerzo excesivo pareció haber precipitado la enfermedad, en los seis demás no hubo causa aparente; en ningún caso hubo antecedentes de traumatismo directo de la cadera.

Una complicación del lado opuesto (variedad alternante) se observó en tres de los diez casos.