Acta orthop. scand. *50*, 341–344, 1979

# PROCEEDINGS OF THE NORWEGIAN ORTHOPAEDIC ASSOCIATION

EDITOR: ARNT JAKOBSEN

## *Oslo, January 21st, 1978*

### MOIRÉ TOPOGRAPHY – A METHOD FOR DIAGNOSIS OF STRUCTURAL SCOLIOSIS

*Stig Willner*
Malmø General Hospital, Malmø

Moiré topography is an optical method for a three dimensional description of the shape of the back. Using this method shadow lines or contour lines are caused by interference between a grid and its shadow on the surface of the back. The pattern of these shadows is influenced by the shape of the illuminated object. The contour lines correspond to those of a topographic map. In the symmetric trunk the contour lines are the same on both sides of the back. In the presence of a structural scoliosis, however, the pattern of the shadows will differ in a typical way between the convex and the concave side because of the extent of the rotation.

Scolioses even less than 10° (according to Cobb) can be diagnosed and documented by photography.

The method seems to be suitable for school screening of spinal deformities (up to 40 children can be investigated per hour).

### EFFECTS OF OXYTETRACYCLINE ON THE MECHANICAL PROPERTIES OF BONE AND SKIN IN YOUNG RATS

*Lars B. Engesaeter*
Institute for Surgical Research, Rikshospitalet, Oslo

Acta orthop. scand. *49*, 529–534.

## *Oslo, February 11th, 1978*

### FOOTBALL INJURIES IN CHILDREN AND YOUTHS

*Asbjørn Roaas & Svein Nilsson*
Martina Hansens Hospital, Sandvika and Health-Sport Center, Beitostølen

This study covers all injuries which occurred in 25,000 players who took part in 2987 matches during the Norway Cup in 1975 and 1977.

A total of 767 consultations were due to injury during matches; one third were contusions. Only 29 fractures were registered, most of them were epiphyseolyses of the distal radius without dislocation. The injury rate was 14 per 1000 hours of playing time. Nine out of 10 of the injured played football the following day.

It is concluded that football is a relatively safe sport for children and youths with a low injury rate, most injuries being of a minor nature.

### TUBERCULOSIS OF THE GREATER TROCHANTER — STILL AN IMPORTANT AND CURRENT CONDITION

*Arvid Lager & Per Siewers*
Martina Hansens Hospital, Sandvika

Seventeen new cases of bone and joint tuberculosis occurred in Norway in 1976, and in 1 month in 1977 three patients were treated for tuberculosis of the greater trochanter in this hospital. A regrettable delay because of wrong or late diagnosis prolonged the suffering of the patients, and in one case resulted in a destroyed hip.

The importance of bearing this diagnosis in mind is stressed.

### PSYCHIATRIC ASPECTS IN AN ORTHOPAEDIC SURGICAL HOSPITAL

*Trygve Leite*
Martina Hansens Hospital and Blakstad Hospital, Sandvika

Some reflections of a psychiatrist, after working for 4 months in an orthopaedic hospital, are reported.

Initially, irrational feelings of staff and patients, both positive and aggressive, were noticeable.

0001–6470/79/030341–04$02.50/0

Combined therapy in long-lasting neurotic disorders gave good results.

A preliminary report is given of a pilot-study of low-back pain. In more than 50 per cent of cases clinical and radiological examination did not explain the suffering. Only three out of 32 patients presented neurotic conflicts indicating causal relationships. Ten patients showed marked reactive depression to non-diagnosed complaints. Iliosacral distortion (Ingebrigtsen) is pointed out as a possible explanation in some cases of low-back pain. Extended cooperation between the different medical fields is necessary to help patients in the above-mentioned group.

### PAGET'S DISEASE OF BONE TREATED WITH CALCITONIN

*Rolf Hagen & Håvard Bjerkholt*
Martina Hansens Hospital, Sandvika

Paget's disease is a rare disorder in the Scandinavian countries. The etiology is unknown and its pathophysiology poorly understood. Chronic inflammation, virus infection, congenital defect of the collagen synthesis, autoimmune disturbances and neoplasm of the osteoprogenitor cells have been suggested as causes of the increased bone turnover.

The excretion of hydroxyproline in the urine is increased and the serum alkaline phosphatase elevated.

Three patients are reported. A 56-year-old man was given salmon calcitonin (100 Medical Research Council units) subcutaneously every second day for 6 months with good clinical response and normalization of the biochemical and scintigraphical findings.

## *Oslo, March 11th, 1978*

### SPINAL STENOSIS

*Ole J. Aarsrud*
Central Hospital in Østfold, Fredrikstad

A case report of a patient, operated upon seven times for sciatica was presented. He had a typical spinal claudication during walking and driving a car. Sitting in a kyphotic position relieved the pain. Metrizamid myelography in a sitting position showed a total block with the back extended.

Total laminectomy and partial facetectomy from L2 to L4 was performed. Normal pulsation of the dura came after removal of the arch of L2.

The patient is relieved from pain and intermittent claudication.

The differential diagnosis between this case and a case of arterial claudication was discussed. The importance of asking the multi-operated patient about claudication symptoms, and the value of performing myelography in a sitting position was pointed out.

### INDOMETHACIN, NAPROXEN AND OSTEOARTHRITIS

*Leif Egil Nygaard*
Central Hospital in Østfold, Fredrikstad

A double-blind study of the treatment of osteoarthritis of the hip and knee with indomethacin and naproxen, comparing the effects and side effects is reported. The two drugs seem to have an equal effect as far as pain and stiffness are concerned. Indomethacin seems to have slightly more gastrointestinal side effects than naproxen.

### NON-UNION OF FRACTURES OF THE HUMERUS

*Ole J. Aarsrud*
Central Hospital in Østfold, Fredrikstad

Three cases of non-union of fractures of the middle part of the humerus were presented. All had initially been unsuccessfully "treated" with a hanging-cast and later operated upon, one patient four times in 6 years.

Re-operation was performed using bone-chips and fixation was achieved with two staples. Postoperatively a thoraco-brachial plaster of Paris cast was applied. All the fractures healed in 3 months.

### THE PRONATOR TERES SYNDROME

*Leif Egil Nygaard*
Central Hospital in Østfold, Fredrikstad

In the forearm the median nerve runs under, or through the pronator teres muscle. On rare occasions this muscle may have accessory bellies, and the median nerve may become compressed between the main and the accessory bellies causing paresthesia and paresis.

One case is presented. The nerve was compressed between the main portion of the muscle and an accessory belly which originated from the interosseous membrane. Operative treatment was successful.

WHAT CAN WE OFFER PATIENTS WITH PELVIC RELAXATION SYMPTOMS?
*Erik Lie*
Central Hospital in Østfold, Fredrikstad

Our experience during the past 20 years is discussed. Only in four cases has surgical treatment been offered. Arthrodesis of both sacro-iliac joints and the symphysis has been performed in these cases.

The importance of daily contact with the gynecological ward is stressed so that evaluation of these patients can be made from the onset of their complaints.

## *Oslo, April 15th, 1978*

SUPRACONDYLAR FEMORAL FRACTURES IN OLD PATIENTS
*Ulf Slungaard*
Aker Hospital, Oslo

Supracondylar femoral fractures in old patients represent a problem when treated in the usual way with the AO condylar plate osteosynthesis. Loosening of the screws, a tendency to varus deformity and slow healing are frequent complications. These patients have often previously had a plate inserted in the proximal part of the same femur, and an additional plate causes a weak point between the plates.

We now treat these fractures with two Rush pins introduced from the condyles, and we find this treatment promising. It causes very little operative trauma, and the fractures seem to heal with more certainty, even when accepting a far from ideal fragment position.

FRACTURES THROUGH THE RETROCONDYLAR FOSSA OF THE PROXIMAL PHALANX OF THE FINGER
*Hans M. Storvik*
Aker Hospital, Oslo

The author believes that the restricted flexion at the proximal interphalangeal joint, associated with fractures through the retrocondylar fossa of the proximal phalanx and dorsal dislocation of the distal fragment, is produced by a mechanical blockage of the movement of the volar plate.

Several experiments have been carried out to prove this, and the importance of this blockage in the treatment of this type of fracture is stressed.

GAS GANGRENE
*Tore Blom-Hagen*
Aker Hospital, Oslo

The most reliable protection against gas gangrene is early wound debridement and prophylactic penicillin medication in all cases of open fractures. The traditional therapeutic approach is immediate surgical intervention with wide radical debridement followed by open drainage without wound closure. The drug of choice is penicillin-G or ampicillin in major doses. Hyperbaric oxygen does not alter mortality rate, but often obviates the need for amputation.

One case of gas gangrene infection in an open fracture of the shaft of the tibia, which led to amputation, is reported. At the time of manifest infection the patient was treated with surgical debridement and antibiotics, but no prophylactic measures were taken.

OSTEOID OSTEOMA
*A. Møllerud*
Aker Hospital, Oslo

After a brief survey of the characteristics of this disease and its operative treatment, two cases of osteoid osteoma in the tibia of young men are reported. One of them had multiple niduses. The significance of tomography in identifying the nidus is stressed.

## *Oslo, May 20th, 1978*

HIP PROBLEMS IN MYELOMENINGOCELE
*Cato Hellum*
Kronprinsesse Märthas Institutt, Oslo

Hip dislocation is especially liable to occur when the affected level is L3–L4, with active hip flexors and adductors and paralytic extensors and abductors. Treatment aims at restoring muscular balance. This can be done by transferring m. iliopsoas to the greater trochanter *ad modum* Sharrard.

Forty-seven hips in 32 patients were operated on in this way over the last 12 years.

| | |
|---|---|
| Results: Caput in good position | 12 hips |
| Improved, but dysplasia/ subluxation persists | 19 hips |
| Failure, dislocated as before | 16 hips |

More important than dislocation are contractures. These must be corrected radically. Usually capsulotomy is necessary.

## OPERATIVE TREATMENT OF TENNIS ELBOW

*Tore Grønmark*
Kronprinsesse Märthas Institutt, Oslo

Surgical procedures for tennis elbows are discussed. The results of surgical treatment of 27 elbows are presented. Hohmann's operation with ablation of the common extensor origin and a modification of Bosworth's operation have been used. The average duration of symptoms before operation was 22 months, and the average observation time was 27 months. Eighteen patients were completely free of symptoms, four patients were markedly improved and five patients were not improved. Surgical treatment is advocated for those patients who fail to obtain relief after conservative treatment.

## INFECTION AFTER TOTAL KNEE REPLACEMENT

*Olav Reikerås*
Kronprinsesse Märthas Institutt, Oslo

Infection seems to be a greater problem following total knee replacement than after total hip replacement. In 523 total hip replacements *ad modum* Müller we had an infection rate of 1.7 per cent. In 46 knee replacements *ad modum* Shiers and Guepar, all having rheumatoid arthritis, the infection rate was 24 per cent. By adequate antibiotic medication the situation was brought under control in six patients. We have removed four prostheses. In the most recently operated case intramedullary nailing from femur to tibia was performed, and gentamycin-cement added. The recovery was uneventful, and the patient was mobilized after 2 weeks.

## CHRISTIANSEN ENDOPROSTHESIS IN OSTEOARTHRITIS OF THE HIP

*Astor Reigstad*
Kronprinsesse Märthas Institutt, Oslo

The long-term results of 16 Christiansen endoprostheses for osteoarthritis of the hip are reported. Average observation time is 8.3 years. No infection or dislocation occurred. One patient had loosening of the stem, and total hip replacement was done. Five patients (31 per cent) had acetabular problems: one patient with proximal migration of the acetabulum had total hip replacement; four patients had intrusion of the prosthesis into the pelvis, only one had pain, and none were re-operated.

The clinical results were classified as excellent in ten (63 per cent), fair in two and poor in four patients. Compared with total hip replacement the long-term results after Christiansen endoprosthesis are less satisfactory, mainly because of the acetabular problems.

## RECONSTRUCTION OF THE THUMB

*Arne Rugtveit*
Kronprinsesse Märthas Institutt, Oslo

Methods of treating total and subtotal thumb deficiency were reviewed and evaluated. It was proposed that pollicization of a toe is indicated when the injured hand lacks two or three fingers in addition to the thumb. Pollicization of an index finger amputated at the proximal interphalangeal joint, with arthrodesis of the metacarpophalangeal joint was the operation of choice. However, pollicization of a normal index finger in the same situation was held to be controversial.

A 16-year-old boy was presented on whom pollicization of a normal index finger was carried out after amputation of the thumb at the metacarpo-phalangeal joint. An excellent functional and cosmetic result was obtained.