Acta orthop. scand. 52, 589–590, 1981

PROCEEDINGS OF THE DANISH ORTHOPAEDIC SOCIETY

Copenhagen, Denmark, October 31, 1980

Editor: N. J. HOLM

GUILDAL MEMORIAL LECTURE

ROTATIONAL INSTABILITY OF THE KNEE AND ITS TREATMENT

E. L. TRICKEY, F.R.C.S.

MOBILITY PATTERNS OF THE ANKLE JOINT AFTER LESIONS OF THE FIBULAR COLLATERAL LIGAMENTS

O. RASMUSSEN & I. TOVBORG-JENSEN

Orthopaedic Hospital, Århus

By means of a specially constructed apparatus it has been possible to register simultaneously the rotational movements of the ankle joint in two planes, provoked by a defined torque. Six dissected ankle joints have been investigated in the sagittal and horizontal planes, and six in the sagittal and frontal planes. Investigations were performed first with intact ligaments and then after successive transection of the lateral collateral ligaments in the direction forward-backwards. For each situation characteristic mobility patterns were found. Dorsiflection increased after total ligament transection. Internal rotation of the talus was increased especially after cutting of the anterior talofibular ligament. After total transection an increased outward rotation was found. Talar tilt gradually increased and after total ligament transection was most pronounced with the foot in dorsiflection.

^{133}XENON WASHOUT RATES FROM THE SYNOVIAL CAVITY IN AN EXPERIMENTALLY INDUCED MODEL OF RABBIT OSTEOARTHRITIS

S. BACH CHRISTENSEN, I. REIMANN, O. HENRIKSEN & C. C. ARNOLDI

Orthopaedic Department U, University Hospital, Copenhagen

Synovial perfusion in six rabbit knees with osteoarthritis, experimentally induced by joint instability, was studied by comparing the initial ^{133}Xe washout rates from the joint space of the unstable osteoarthritic knee and the contralateral sham operated control knee, at intervals of 6 to 96 weeks postoperatively. Within the first half year the ratio between the washout rates in the osteoarthritic and in the control knee was significantly increased.

The initially increased synovial blood flow coincided with the existence of joint effusion and the early development of osteophytes, conditions that are supposed to be a consequence of post-traumatic synovitis. Attention is drawn to this pathogenic phenomenon in studies dealing with any initial changes in experimental models of osteoarthritis and to a possible etiological significance.

ACUTE CHANGES OF THE EPIPHYSEAL AND METAPHYSEAL BONE MARROW PRESSURE IN THE KNEE JOINT IN RELATION TO JOINT POSITION AND JOINT EFFUSION

C. BÜNGER & S. SØRENSEN

Orthopaedic Hospital, Århus

The present investigation involves nine dogs, 8–10 weeks old. An intraarticular pressure-increase in the knee joint resulted in a significant increase in the intraosseous pressure in the distal femoral epiphysis, while the pressures in the distal femoral metaphysis and the proximal tibial epiphysis were unchanged. During passive maximal flexion of the empty knee joint a significant increase in the distal femoral epiphyseal pressure was observed, while maximal extension resulted in a significant increase in the tibial epiphyseal pressure. A moderate intraarticular effusion augmented the pressure increases during maximal flexion and extension. By selective ligation of the venous drainage from the juxtaarticular bones in the popliteal fossa and on the femur different levels of epiphyseal hypertension were produced.

0001-6470/81/050589-02 $02.50/0

DISTAL TRANSPOSITION OF THE VASTUS MEDIALIS IN RECURRENT DISLOCATION OF THE PATELLA IN YOUNG PEOPLE

H. Emnéus

Orthopaedic Department, Aalborg Hospital, Aalborg

More than 100 surgical procedures for the correction of recurrent patella dislocation have been described.

The author describes a technique which involves a distal transposition of the vastus medialis of 5 to 6 cm and a duplicature of the medial capsule of the knee followed by 4 weeks in plaster.

This technique led to complete success in 10 out of 14 cases and only one failure. In adults it may be successfully combined with the Hauser procedure.

THE CLINICAL BENEFIT OF RADIOLOGICAL EXAMINATION OF PATIENTS ADMITTED FOR LESIONS OF THE MENISCI

S. Sonne-Holm, C. Hjort Sørensen & H. Weimann

Orthopaedic Dept. T-3, Gentofte Hospital, Copenhagen

The routine X-ray examination of the knee in 485 patients admitted for lesions of the menisci showed pathological findings in 17 per cent. The decision whether to operate or not was influenced by the radiological findings in only 4 per cent of the cases.

By comparing the radiological diagnosis with the peroperative findings, the diagnostic specificity and the nosological sensitivity of the X-ray examination could be calculated.

The great discrepancy between the two values showed that the X-ray examination confuses rather than helps the surgeon.

THE MARMOR MODULAR KNEE

H. Pilgaard Jeremiassen & K. Stie Jensen

Orthopaedic Department, Hvidovre Hospital, Copenhagen

During the period from 1976–79, 70 operations with the Marmor Modular knee were performed and 67 were re-examined with a mean observation time of almost 2 years. The indications for the operation were osteoarthritis in 39 cases, rheumatoid arthritis in 30 cases, and in 8 cases conditions following fractures.

At follow-up 64 per cent of the patients were free of pain or had only minimal pain, 24 per cent complained of pain on weight-bearing and 12 per cent (8 knees) had persistent pain on rest and weight-bearing. Seventy per cent of the patients found the results excellent or good. There were no major complications and in particular no infections.

PERCUTANEOUS OPERATIONS BY THE ARTHROSCOPIC TECHNIQUE

J. Laurítzen & P. E. Søndergaard Petersen

Aarhus County Hospital, Aarhus

During the last 1½ years a few of the surgeons most experienced in arthroscopy have performed an increasing number of percutaneous knee operations under anaesthesia and in a bloodless field. We have used the special instruments of Stille-Oretorp in connection with a 30° Storz 5 mm arthroscope, a Wolff 7.5 mm operating arthroscope and a Dyonic shaver, but TV-monitoring and power-driven flow were not available.

With an observation time of 3 months we have had good results in 41 out of 53 cases and only 2 reoperations. There have been 26 resections of meniscal tears; half of these patients returned to work within the first week and 25 within the first month.

SECONDARY RECONSTRUCTION OF THE ANTERIOR CRUCIATE LIGAMENT *AD MODUM* CHO

A. Buhl Nielsen & S. Christensen

Aarhus County Hospital, Aarhus

Out of 20 cases of semitendinosus tendon transfer for tears of the anterior cruciate ligament 17 have been reexamined.

Fourteen patients had complicating lesions of the menisci and/or collateral ligaments. At reexamination it was found that 15 patients were back at work, one was on a pension and one was still training. Ten patients had resumed their sports.

In spite of a slight anterior drawer sign 11 patients felt the result was good and one fair. The five poor results may be due to a long interval between trauma and operation and to complicating lesions.

An extensive training period should be tried before the decision to operate is made.