NON-SURGICAL METHODS FOR CORRECTION OF KNEE FLEXION CONTRACTURE. D.C. Boone. Orthopaedic Hospital, Los Angeles, California, U.S.A.

Knee flexion contractures have presented problems for the physical rehabilitation of hemophilic patients. These deformities reduce the functional mobility of the patient and their presence increases the amount of energy which is expended in walking. Hinges which extend the knee and tend to desublux the tibia are incorporated in plaster cylinders. Daily adjustments are made in the extension and subluxation screws. Serial castings may be required when correcting a flexion deformity greater than 30-35 degrees. Maximum correction can be expected in two to three weeks. Maintenance of the corrected position is vital and is obtained through a sequence of cylinder and open-front castings. The extension desubluxation hinge and the open-front cylinder cast will be demonstrated and discussed.

SURGICAL MANAGEMENT AND COMPLICATIONS. M.S. Gilbert. Mt. Sinai School of Medicine, New York, New York.

Surgery in the hemophiliac requires close coordination of a team familiar with hemophilia care. Minimum requirements include a hematologist, a diagnostic laboratory capable of performing factor and inhibitor assays, complete blood banking facilities and an orthopedic surgeon and physiotherapist familiar with the orthopedic complications of hemophilia. Pre-surgical evaluation must include an inhibitor study and an infusion study to determine levels and half life. A single batch of 60-100,000 units of concentrate is set aside for the patient.

Surgery is scheduled for early in the day and early in the week. Intramuscular anaesthetic pre-medications are avoided. The infusion is given just before induction of anaesthesia and a post infusion level determined. Surgery is started immediately and special care is taken to avoid contamination of the operating room team because of the risk of hepatitis. Surgical technique differs little from that used in the non-hemophiliac with close attention to hemostasis. Tourniquets, electrocoagulation and suction drains have been used without problems.

Factor levels are not allowed to fall below 30% until sutures are removed and healing is complete. Physiotherapy may require maintenance of levels for longer periods.

ELBOW ARTHROPLASTY IN HEMOPHILIC ARTHRITIS. A.M. Martinson. Orthopaedic Hospital, Los Angeles, California, U.S.A.

The elbow is the second most commonly affected joint in hemophiliacs. In the adult patient with pain and frequently recurring bleeding episodes in an elbow, unresponsive to splintage, exercise and steroids, we have used resectional arthroplasty of the radial head and subtotal synovectomy for symptom relief. At one hospital 13 patients (15 elbows) ranging in age from 17 to 35 have had this procedure. All patients have had significant relief of pain and bleeding and this relief has been lasting; our longest followup is 8 years. No patient has made a significant gain in overall range of motion, however many have gained a small amount of rotation which has resulted in considerable functional improvement. One total elbow was inserted for recurrent pain and decreasing motion in a previously-operated elbow which sustained significant trauma. Two years later the patient has excellent function without bleeding but x-rays show the components to be loose. Revision at a later date will most likely be required.