PROPHYLAXIS FOR HEMOPHILIC ARTHROPATHY. S. Ross Mackay, M.D. University of Rochester School of Medicine, Rochester, New York, USA

Hemophilia patients at the Rochester, New York, Hemophilia Center Clinic on three different modes of transfusion therapy were reviewed. It was found that those patients receiving prophylactic transfusion on a home infusion basis required less material over time than those on home infusion or out-patient therapy. It was concluded that many hemorrhages may have a psychomotor origin and that prophylactic transfusion at home suppressed hemorrhage on a psychomotor basis. The mode of therapy may thus be a factor in slowing the rate of hemophilic arthritis.

HAEMOPHILIC ARTHROPATHY - ULTRASTRUCTURAL AND MICROPROBE ANALYSIS. R.B. Duthie and H. Stein, Nuffield Department of Orthopaedic Surgery, Oxford University, Oxford, England.

Biopsy specimens of synovial membrane and of articular cartilage, from fifteen patients who had undergone various reconstructive procedures, were studied histochemically, by transmission electron microscopy and by electron probe analysis. Synovitis was obvious with the presence of cells resembling fibroblasts but containing intracytoplasmic, electron dense particles, i.e., sideromes. However by electron microprobe analysis not all these electron dense particles contained iron and therefore cannot be considered as 'true sideromes'. There appeared to be a quantitative relationship between the presence of true sideromes and the degeneration of both synovial cells as well as articular chondrocytes. Although orientation was difficult many chondrocytes in the superficial and middle zone layers had true sideromes in their cytoplasm. They showed advanced necrosis with fissuring and clefting of the matrix as well as chondrocyte clustering. Those not containing true sideromes, although abnormal, showed less advanced cellular changes. All B type synovial cells and chondrocytes also demonstrated a phagocytic propensity to iron degradation products.

SURGERY IN HEMOPHILIA. Seymour Zimble, M. D. Tufts University Medical School, Boston, Massachusetts, U.S.A.

The result of followup evaluation on the treatment of 110 Hemophiliacs followed within a comprehensive Hemophilia Clinic through the Tufts New England Medical Center and Memorial Hospital in Worcester, as well as the University of Massachusetts in Worcester, Massachusetts. A larger total of 300 Hemophiliac patients of all types have been followed. 40 patients or more have undergone surgical procedures on various joints during the past 7 years. The results of these operations have been reviewed and guidelines are presented regarding their treatment. Break-down of operative procedures include synovectomy of the knee 7, total knee arthroplasty, 5. Also included are arthrodeses of the knee, ankle, and subtalar joints as well as the elbow. Soft tissue procedures such as heel cord lengthening, decompression of carpal tunnel syndrome, excision of pseudo tumor are also included. Arthroplasty and synovectomy require 3 weeks or more of active treatment with levels of Factor VIII maintained at 50% for the entire treatment period. Those individuals treated by arthrodesis or simpler procedures require infusions for 10 days to 2 weeks. Factor IX deficiency patients require levels of 30-50% for their entire treatment program.