

BIOMECHANICAL ALTERATIONS CAUSED BY MUSCULO-SKELETAL BLEEDINGS. P. Hofmann, G. Schumpe, Orthopädische Universitätsklinik Bonn, H.H. Brackmann, Institut für experimentelle Hamatologie und Bluttransfusionswesen der Universität Bonn, Germany.

10,000 bleeding events into the musculo-skeletal system of 500 hemophiliacs were brought into statistical relation with the clinical and radiological findings. A significant interaction between alteration of distinct biomechanical parameters and the frequency of musculo-skeletal - especially intraarticular - hemorrhages was seen. The initial change due to intraarticular hemorrhage was found to be muscular imbalance leading to a) malpositions of the articular axes, b) excentric restriction of movement, c) reduced weight bearing capacity. Unphysiological gait results and induces an increased frequency of local bleedings as well as biomechanically pre-determined overstresses within ipsilateral joints and muscles. The latter induces joint or muscle bleedings in the presence of hemophilic coagulation defect. The alterations mentioned above are amplified by skeletal growth.

ELECTIVE SYNOVECTOMY IN HEMOPHILIA. Geni A. Bennetts, Marilyn G. Myers, Brian A. Ewald Childrens Hospital of Orange County, Orange, California, U.S.A.

A total of twenty-one elective synovectomies and three repeat elective synovectomies, as stimulated by the work of Storti, et al., were performed on elbows, knees, and ankles of six patients with Classical Hemophilia (circulating antihemophilic globulin factor VIII < 1%) from 1970-1976. Decision to perform surgery was based on recurrent bleeding into a joint, decrease in joint function, and radiographic evidence of joint destruction. The surgical protocol established included preoperative therapy with commercial Antihemophilic Globulin Concentrate (AHG) and epsilon aminocaproic acid. Surgical synovectomy was followed by postoperative management which included parenteral therapy with AHG and epsilon aminocaproic acid, joint drainage and, in addition, interarticular epsilon aminocaproic acid and antibiotics with mobilization. When indicated, manipulation under anesthesia combined with a regimen of physical therapy was carried out. Initial results were encouraging, but enthusiasm after up to six years follow-up has been tempered by recurrence of hemarthroses and further radiographic deterioration in several of the synovectomized joints. This has necessitated the three aforementioned repeat synovectomies.

THE USE OF FIBROSEAL IN HEMOPHILIC CYSTS - A CASE REPORT. K. Anderle, Wien, N. Böhler, Orthopädische Universitätsklinik, Wien; F. Baudo, F. de Cataldo, and L. Silvello, Department of Hematology, Ospedale Maggiore, Niguarda, Milan.

Based on the good results achieved with a fibrin-sealing-system consisting of a high concentrated fibrinogen-containing plasma fraction, thrombin, and calcium chloride in animal experiments and in patients suffering from bone tumors, this sealing method was used for the first time in a severe hemophilic. Due to a massive, fractured hemophilic cyst in the proximal part of the right femur this patient had been unable to walk for months.

Combining homologous and autologous bone transplantation, fibroseal, and osteosynthesis, it was possible to avoid amputation. At present, the patient is following a rehabilitation program.

The result in this case and experience gained from earlier studies indicate that the use of fibroseal for bone reconstruction offers a new approach to orthopaedic problems in hemophilia patients.