BIOMECHANICAL ALTERATIONS CAUSED BY MUSCULO-SKELETAL BLEEDINGS. P. Hofmann, G. Schumpe, Orthopädische Universitätsklinik Bonn. J.W. Brackmann. Institut für experimentelle Hämatologie 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 intrarticular - hemorrhages was seen. The initial change due to intraarticular hemorrhage was found to be muscular imbalance leading to 1) malpositions of the articular ace, 2) biconic restriction of movement, 3) reduced weight-bearing capacity. Implantological gait alterations 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.

ELECTIVE SYNOVECTOMY IN HEMOPHILIA. Jodi A. Bennett, Marilyn G. Myers, Brian A. Buald. Children's 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 Storl, et al., were performed on elbows, knees, and ankles of six patients with classical Hemophilia (circulating antihemophilic globulin factor VIII <15) 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 amino-caproic acid. Surgical synovectomy was followed by postoperative management which included parenteral therapy with AHG and epsilon amino-caproic acid, joint drainage and, in addition, interarticular epsilon amino-caproic 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.


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 hemophiliac. Due to a massive, fractured hemophilic ose 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.