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Short Report

# Usefulness of arthroscopic debridement in patients with chronic severe hemophilic arthropathy of the knee

## Introduction:

Hemophilia is a coagulation disorder that causes frequent joint bleeding, the knee being the most affected joint, leading to articular cartilage destruction and functional disability. In young patients with advanced arthropathy (Arnold-Hilgarner III-IV) arthroscopic debridement is an important and valuable treatment in patients who are not candidates for total knee arthroplasty; in this procedure the removal of meniscal fragments, hypertrophic synovium and intercondylar notch remodelling can improve mobility, gait mechanics, and may decrease pain and the number of joint bleedings due to mechanical causes, achieving an improvement within 2 to 5 years.

## Objective:

To demonstrate the benefits of arthroscopic debridement, which lead to the improvement of the function, quality of life and to the postponement of the need for a total knee arthroplasty at early age.

## Methods:

We studied 20 patients with hemophilia A and B, between the age 20 to 30 years with severe hemophilic knee arthropathy (grade IV) who complained of painful hemarthrosis and on whom arthroscopic debridement was performed.

**Figure 1: Preparation of a patient with severe hemophilic arthropathy**

## Results:

12 male patients with severe hemophilia A (one of whom underwent bilateral knee arthroscopy), 2 patients with moderate hemophilia A and 1 with severe hemophilia B, (19-26 years old, average 20.4) were treated with arthroscopic debridement; 3 of them had type C hepatitis and one had inhibitor. Of these 6 received surgery on their right knee, 5 on left knee and 1 on both knees. All of them were treated with previous administration of factor concentrates under supervision of a hematologist, and successively total arthroscopic synovectomy, meniscal remodelling, osteophyte resection, thermal chondroplasty and in 5 cases lateral patellar retinaculum ablation was performed. In all cases the deficit factor concentrate was continued for 3 weeks after surgery; all patients received musculoskeletal rehabilitation before and after surgical procedure, aiming for a better articular mobility range and muscular strength. All patients manifested pain improvement and a wider range of movement.

## Conclusions:

The Day Surgery arthroscopic debridement was followed up by a team composed of an orthopaedic surgeon, a hematologist and a physiotherapist, and resulted in an improvement of the painful bleeding joint and the postponement of the need for a total knee arthroplasty by a 5 to 8 year period.

**Figure 2: Arthroscopic debridement of the knee in a patient with advanced hemophilic arthropaty**