Chapter 18
Total Hip Arthroplasty in Patients with Hemophilia

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The most common clinical manifestation of hemophilia is arthropathy secondary to repeated intra-articular bleeding and chronic synovitis. In patients with hemophilia, 80–85% of the bleeds occur into the joints [1, 2]. The articular bleeding can cause synovial hypertrophy, and a vicious circle of chronic synovitis develops with rebleeding. The blood in the joint makes the synovial tissue become catabolically active, and inhibits synthesis of the cartilage matrix. The blood has also a direct harmful effect on cartilage irrespective of the synovial changes [3]. The articular problems in patients with hemophilia begin in the early years of life. If untreated, this condition is followed by degenerative changes, and a stiff or painful joint will result. Hemophilic arthropathy is a disabling condition that may cause chronic pain and immobilization, and impair the quality of life of the hemophilic patient. Prophylactic therapy can slow the natural course of hemophilic arthropathy. However, due to its excessive cost, prophylaxis is only possible in a small proportion of patients with hemophilia.

The most commonly affected joints in patients with hemophilia are the knees, followed by the elbows and ankles, with the shoulders and hips affected to a much lesser extent [2]. Spontaneous bleeding in the hip joint is uncommon. Thus, end-stage hemophilic arthropathy requiring arthroplasty is infrequent in the hip. Although there have been several reports of the results of total knee arthroplasty for hemophilic arthropathy, there have been few papers concerning the results of total hip arthroplasty (THA) in hemophilic patients. Therefore, we aimed to discuss the technique and results of THA in patients with hemophilia, with a review of the literature.

The indication for THA in patients with hemophilia is severe, disabling pain with activity and at rest. We prefer cementless prosthesis designs with ceramic-on-ceramic surfaces, because hemophiliac patients who need joint replacement surgery are usually young. Our factor substitution protocol is according to the method of Löfqvist et al [4]. The surgical technique is the same as for standard arthroplasty using the lateral approach in the lateral decubitus position (Figs. 18.1 and 18.2). Minimally invasive surgery and hypotensive anesthesia techniques are helpful to control excessive bleeding. Electrocauterization of all small bleeding points is inevitable. Post-operative rehabilitation in the hemophiliac patient who
Fig. 18.1 Position of patient on the operating table

Fig. 18.2 Intra-operative view of the minimally invasive incision