

# POSTSURGICAL RANGE OF MOTION (ROM) OF TOTAL KNEE ARTHROPLASTY (TKA) IN PATIENTS WITH HAEMOPHILIA (PWH) OPERATED WITHOUT TOURNIQUET

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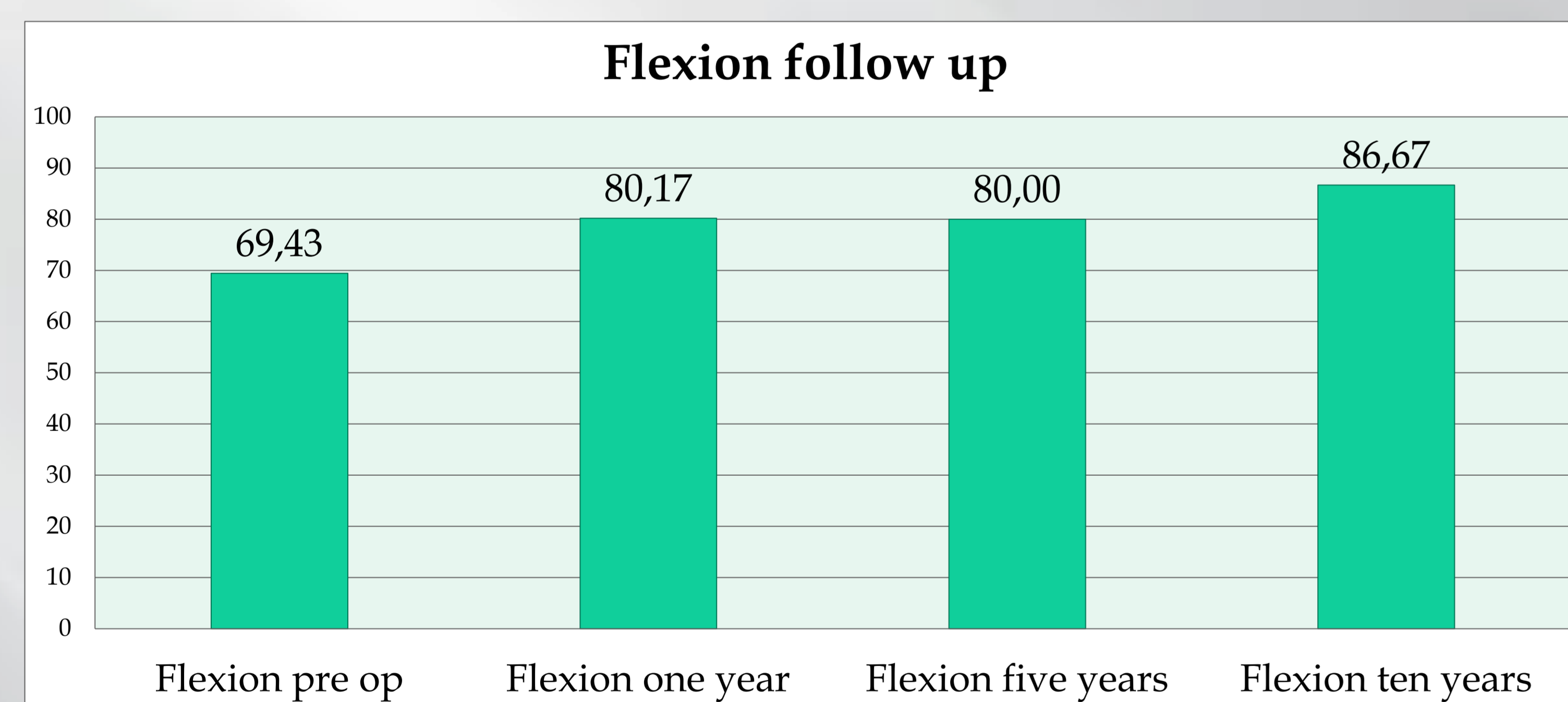


**Introduction:** The literature showed that the post surgical ROM in PWH treated with TKA slightly improved with the procedure. We have analyzed international publications and the median ROM postsurgery was 23°

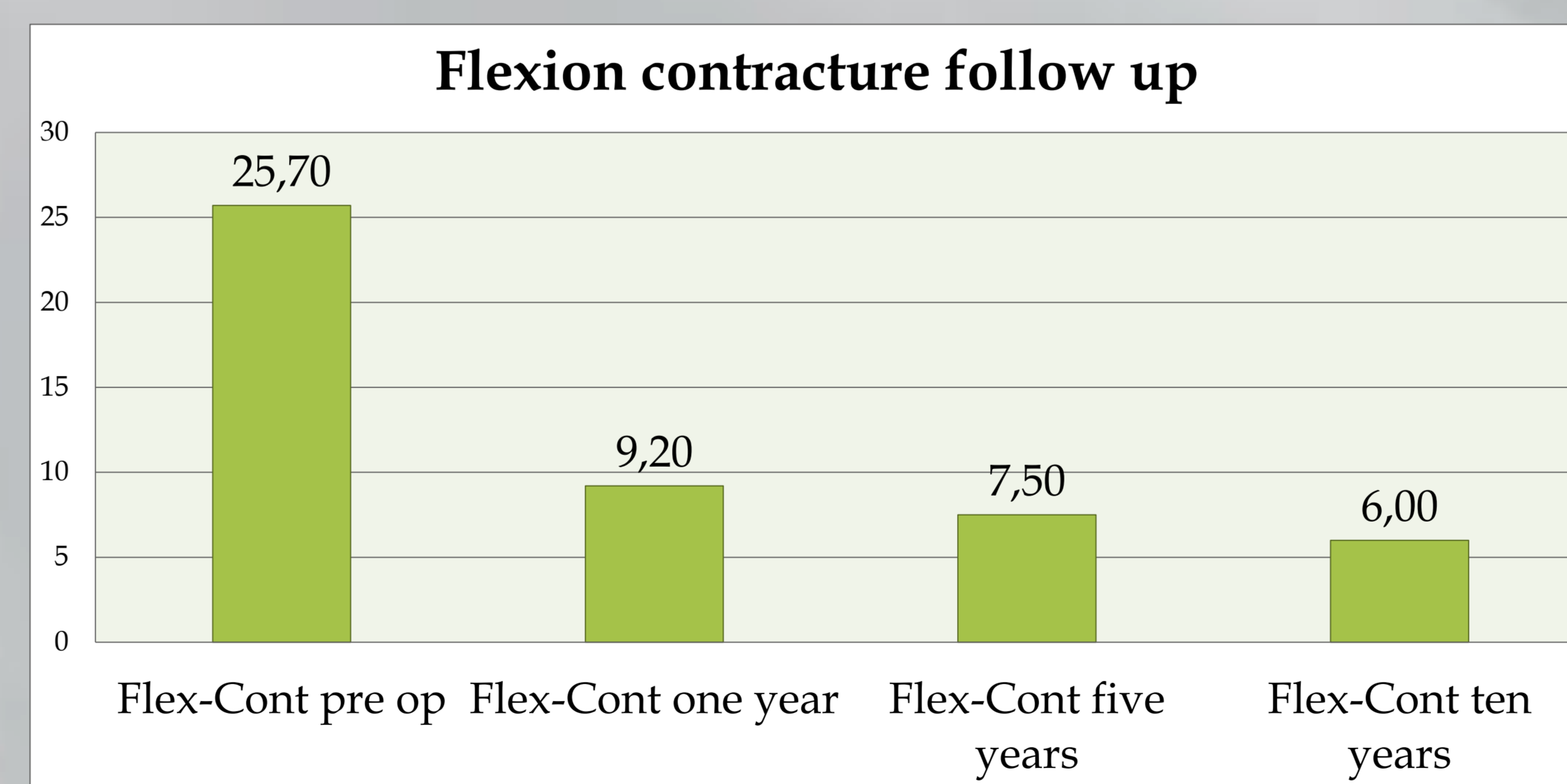
**Objective:** To evaluate the range of postsurgical motion in patients with Total Knee Arthroplasty (TKA) in our treatment center.

**Materials and Methods:** From 2001 to 2015, 38 TKAs were performed in 29 patients with severe haemophilia A, 9 bilateral and 20 unilateral, 35 were primary TKAs and 3 revision surgery. Mean age at arthroplasty was 46 years old, mean follow-up was 10 years (range 1-10). We evaluated ROM preoperative, postoperative at 6 months and once a year every year up to ten years. All patients received physiotherapy, including postural treatment immediately after surgery until 6 months postoperative. Two patients died during follow up not related with surgery.

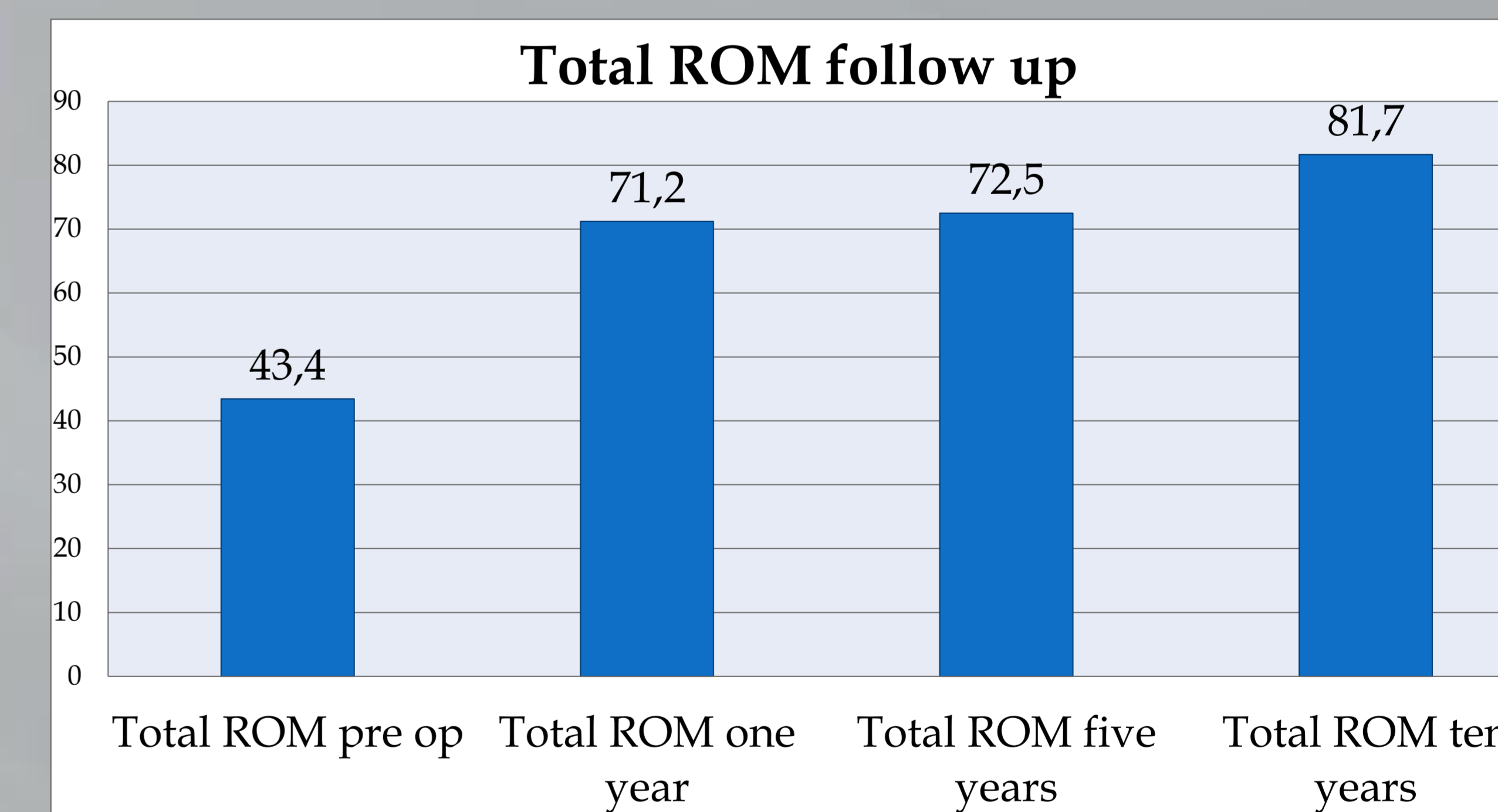
**Results:** At one year post TKA the mean knee flexion improved from 69.4° preoperative to 80.1° postoperative (P=0.004), the improvement was 10.7°. At five years post TKA was 80° (P=0.001). At ten years was 86.6° (P=0.001), the improvement was 17.2°. (Graph 1).  
At one year post TKA the mean knee flexion contracture diminished from -25.7° to -9.2°, with an improvement of 16.5° (P=0.001). At five years post TKA was 7.5°, with an improvement of 18.2° (P=0.001). At ten years was 6°, with an improvement of 19.7° (P=0.001) (Graph 2).  
At one year post TKA the mean total ROM increased from 43.4° preoperative to 71.2°, with an improvement of 27.8° (P=0.001), At five years post TKA was 72.5°, with an improvement of 29.1° (P=0.001). At ten years post TKA the mean total ROM increased from 43.4° preoperative to 81.7° postoperative, with an improvement of 38.3° (P=0.001) (Graph 3).  
Total ROM obtained at one year postoperative, was maintained up to the final follow up. Comparing our results with those in the papers analyzed, we found that our patients were the oldest in all the samples, with a good improvement in the total ROM. The rehabilitation period is the longest, which contributes to the maintenance of the ROM in time.



Graph 1: The mean knee flexion at one, five and ten years



Graph 2: The mean knee flexion contracture at one, five and ten years



Graph 3: The mean total ROM at one, five and ten years

**Conclusion:** TKA in patients with hemophilia operated without tourniquet obtains good mobility allowing patients to improve their activities of daily living. The improvement in flexion, flexion contracture and total ROM was maintained with the passing of time.

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