

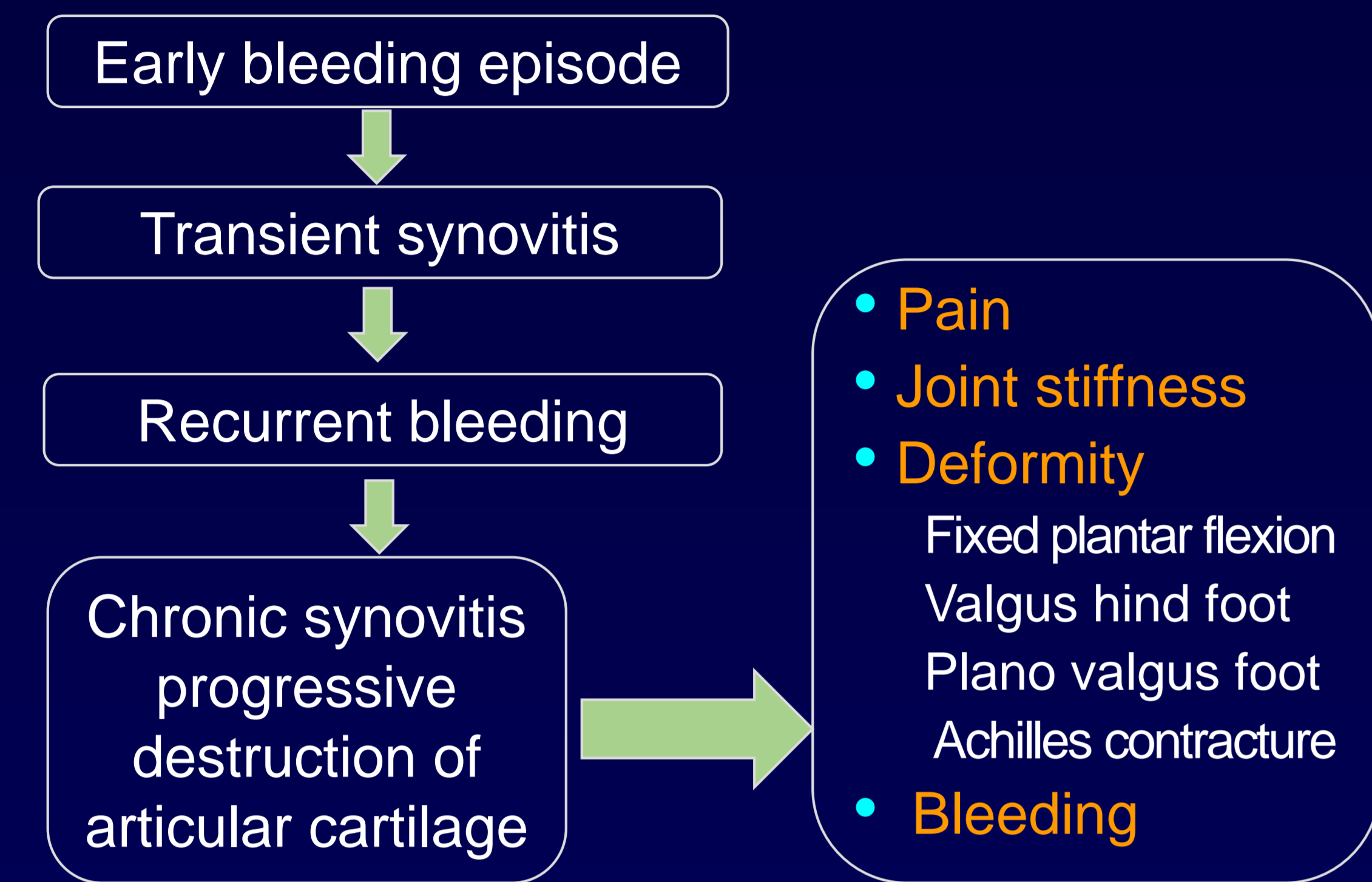


Total Ankle Replacement (TAR) in Haemophilic Arthropathy of the Ankle #113

Myung Chul Yoo, M.D., Jae Hoon Lee, M.D., Bio Jung, M.D. Sang Hoon Lee[✉], M.D.

Kyung Hee University Hospital at Gangdong, Kyung Hee Medical Center, Seoul, Korea., Himchan Hospital[✉], Seoul, Korea.

Main problems in Haemophilic Arthropathy of Ankle



Introduction and Objectives

The standard treatment for haemophilic arthritis of the ankle joint is joint preserving procedures such as arthroscopic synovectomy, debridement and anterior osteophyte resection. In case of advanced haemophilic arthritis, ankle fusion has been treatment of choice. But Total Ankle Arthroplasty (TAA) is still controversial as a treatment option. No TAA system to date has achieved results similar to THA or TKA. Advantages of TAA are pain relief, provide a near normal gait, greater movement at the ankle, balanced timing of gait, and decrease bleeding episode. The purpose of the present study was to evaluate the intermediate-term outcome of TAA in patients with haemophilic arthritis of the ankle joint.

Demographic Data

- From Jan. 2008 to Dec. 2013
- 8 ankles, 8 patients
- Haemophilia type (A : B) 7 : 1
- Sex (M : F) 8 : 0
- Rt : Lt 5 : 3
- Mean age : 37.5 years (range, 26 to 56 years)
- Mean body weight : 71.7 kg (54 to 88 kg)
- Mean BMI : 26.0
- Mean f/u period : 70 months (23 to 93 m)

Total ankle replacement implants

- The implant was unconstrained three-compartment ankle implants.

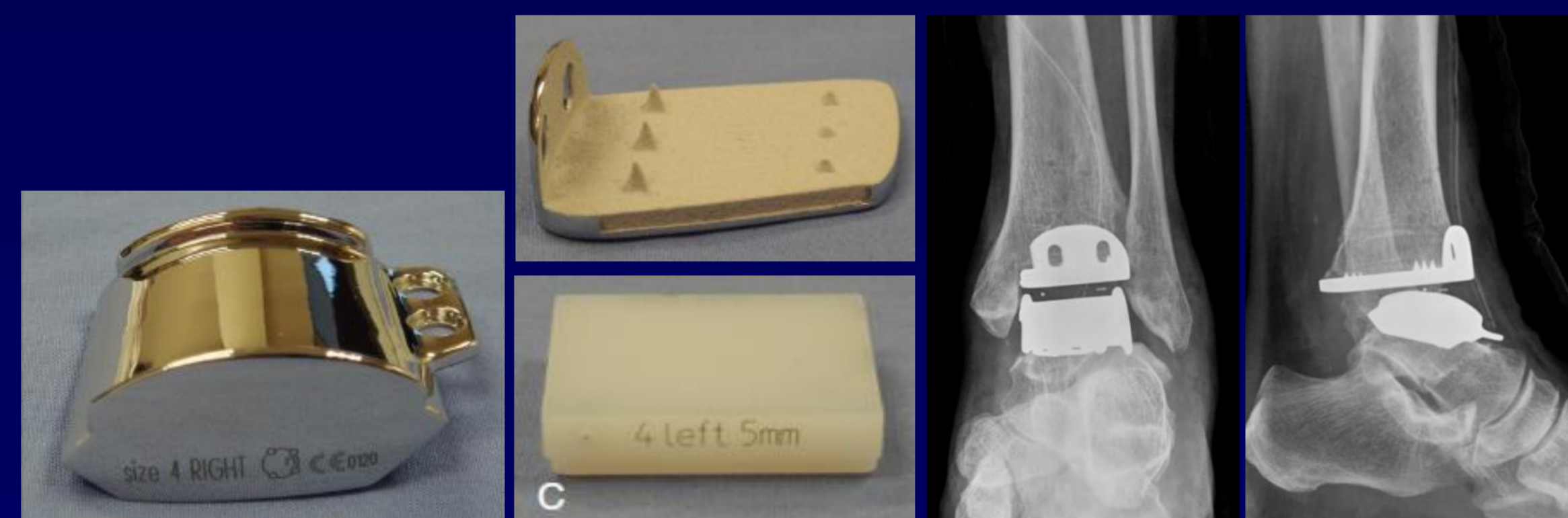
➤ Mobility (Depuy International, Leeds, UK)

- 3 component, mobile bearing system
- Flat articular surface, conical intramedullary stem
- Cementless



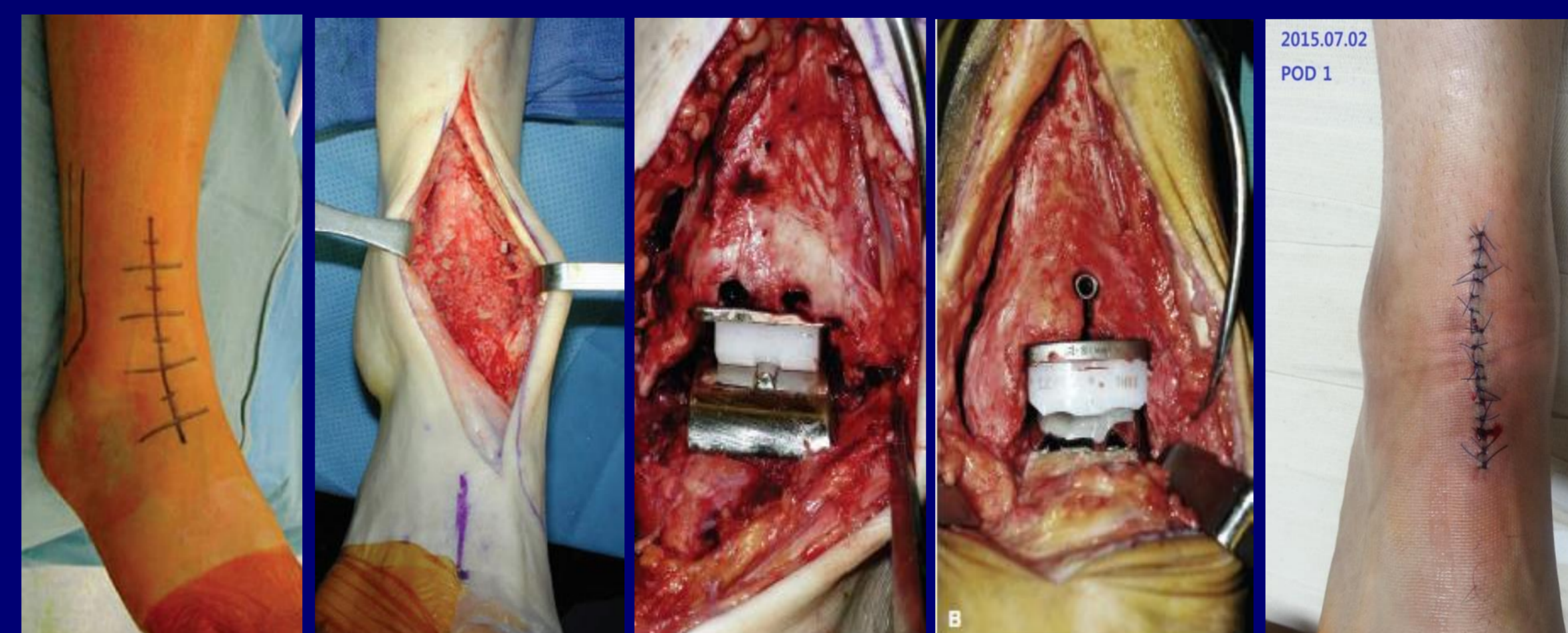
➤ Hintegra (Integra Life Science/Newdeal, Lyon, France)

- 3 component, mobile bearing system, cementless
- Mobility : axial rotation
- Normal flex-extension

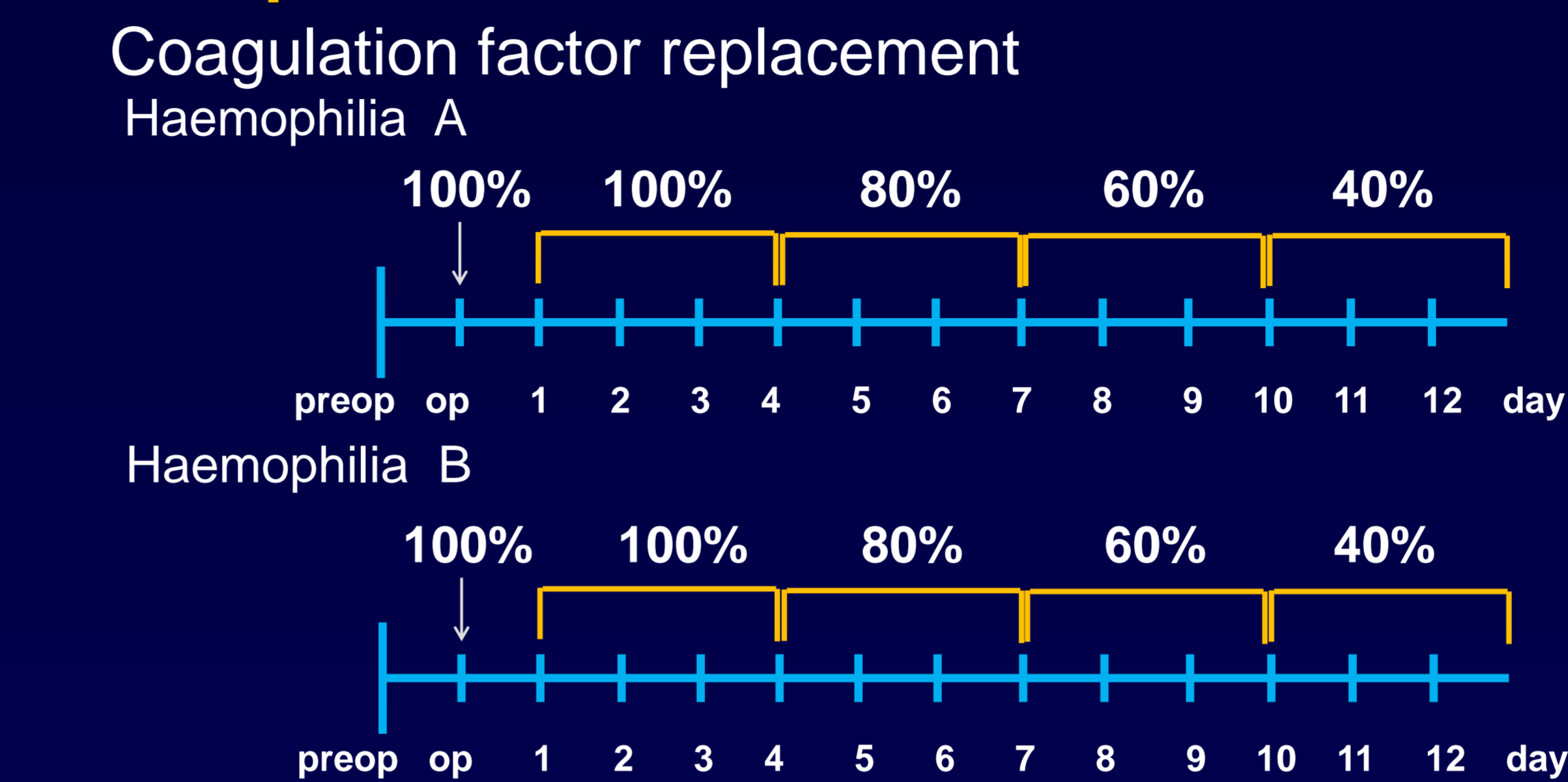


Surgical procedure

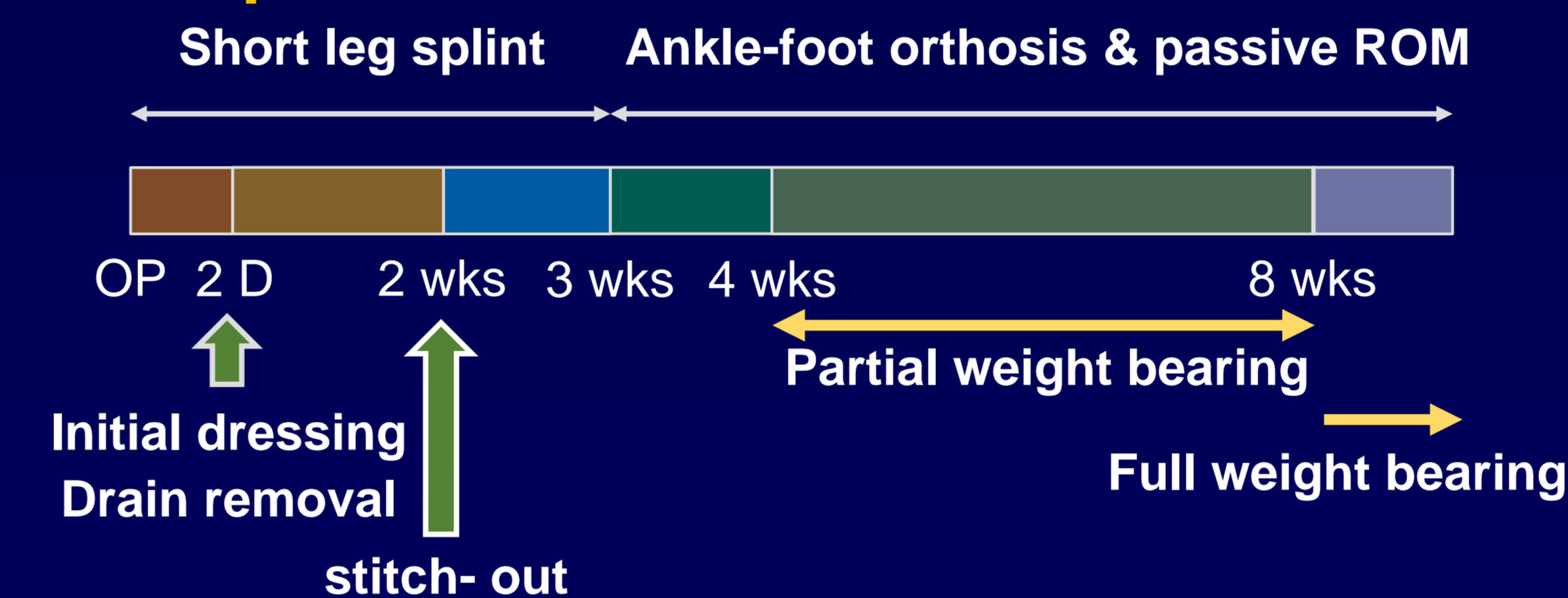
- Under general anesthesia
- Tourniquet at the ipsilateral thigh (250mmHg)
- Anterior approach
- Implant insertion and combined adjunctive procedures if needed
- Hemovac
- Skin suture
- Splint apply



Post op Treatment



Postoperative Care



Results

The outcome was assessed with clinical and radiological evaluations. The AOFAS ankle-hindfoot score increased from 29 preoperatively to 89 postoperatively in average. All patients were satisfied with results. VAS scale decreased from 8.1 preoperatively to 0.4 at the final follow-up. There were significant improvements in all outcome categories between the preoperative and postoperative evaluations. There was no loosening or osteolysis in radiological analysis.

Variables	Preop	Final F/W
VAS	8.5	1
Range of Motion		
Dorsiflexion	2.5 °	4.8 °
Plantar flexion	30.6 °	35 °
Total ROM	33.1 °	39.8 °
AOFAS Hindfoot score	49.5	83.6

Outcomes of Total Ankle Replacement in Haemophilic Arthropathy

Author	Implant	Case (n)	Follow-up (month)	Age (year)	Survival
Barg (2010)	Hintegra (10)	10	66	43.2	100%
Asencio (2014)	AES (27) Hintegra (5)	32	52.8	44	96% at 4 years
Yoo (2015)	Hintegra (7) Mobility (1)	8	70	37.5	100%

Case I JW Kim 36/M Haemophilia A



Ankle motion at the last F/U



Case II DK Kwon 34/M Haemophilia A



Ankle motion at the last F/U



Conclusions

This study suggests that the intermediate-term outcome of TAA in haemophilic patient is comparable to that of other total joint replacements. The results of this study showed favorable clinical outcome. Although gain of motion was limited, but joint mobility could be kept and patient satisfaction, especially pain control were excellent. In haemophilic ankle arthropathy, TAA is a valuable and efficacious alternative to the ankle fusion in an aspect of pain free ankle mobility.

References

- Asencio, J. G., et al. "Short-term and mid-term outcome of total ankle replacement in haemophilic patients." *Foot and Ankle Surgery* 20.4 (2014): 285-292.
- Barg, A., et al. "Haemophilic arthropathy of the ankle treated by total ankle replacement: a case series." *Haemophilia* 16.4 (2010): 647-655.
- Alexej, et al. "Total ankle replacement using HINTEGRA, an unconstrained, three-component system: surgical technique and pitfalls." *Foot and ankle clinics* 17.4 (2012): 607-635.