

Introduction and objectives

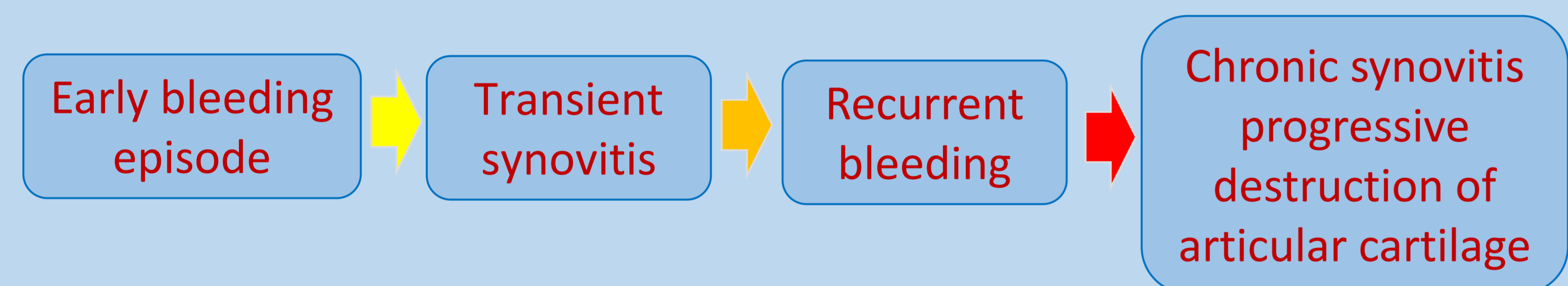
• In Haemophilic arthropathy, Ankle is the 2nd most common joint
- Hemophilia Surgery Center 299 pts.analysis

Anatomic characteristics in Ankle

- Poor soft tissue
- No muscle
- Bone and skin
- 3 bones articulation
- Dome shape
- Full wt. bearing joint

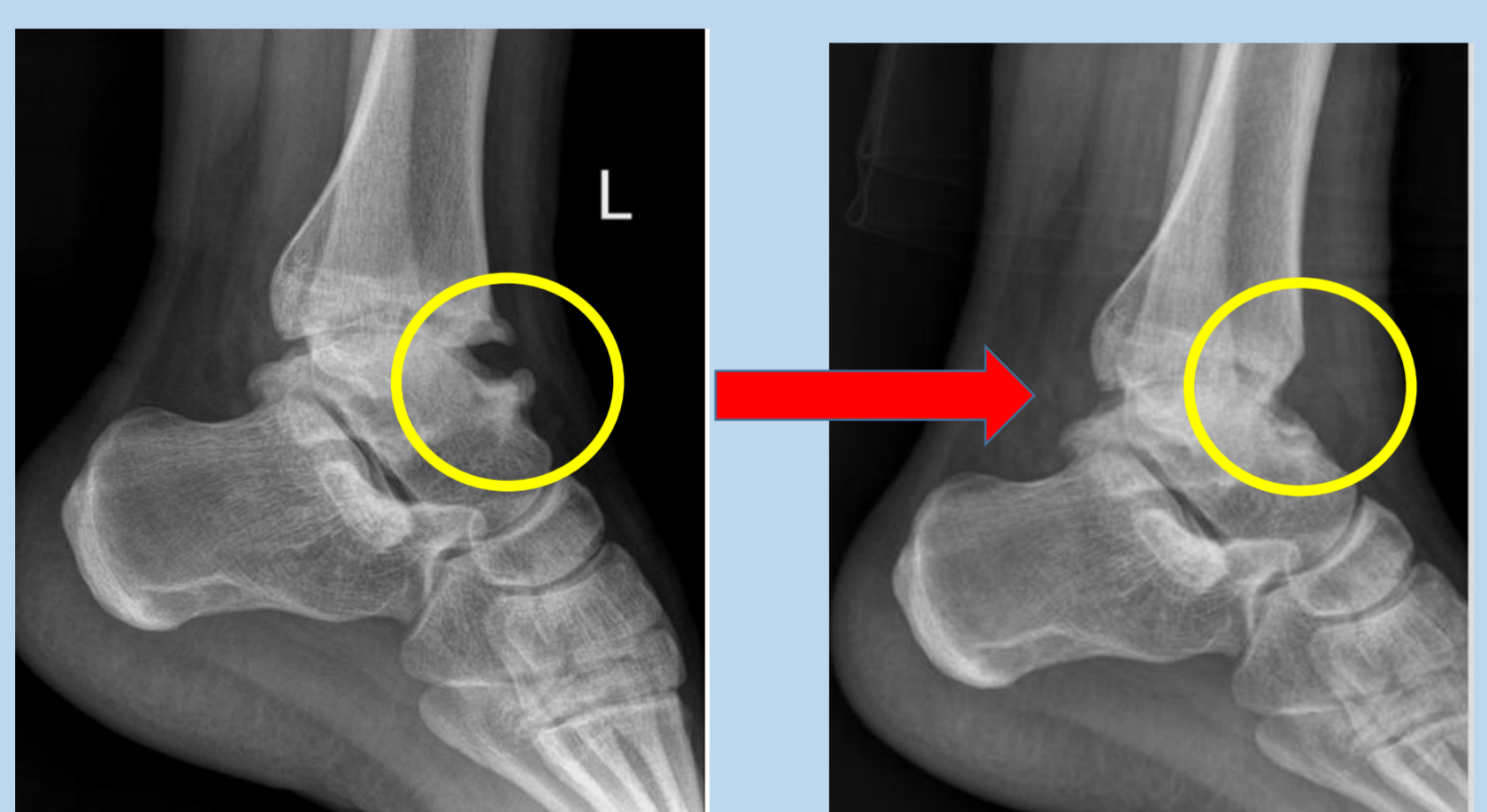


Joint destruction in Haemophilic arthropathy of ankle



Obstacles of Ankle Dorsiflexion

- Ant. Osteophytes Tibia, Talus
- Arthritic changes
- Achilles T. contracture
- Capsular adhesion



To Improve Ankle Dorsiflexion motion

- Ant. Osteophytes resection (arthroscopic surgery)
- Achilles tendon lengthening

Methods

Demographic data

Sept. 2008 ~ Feb. 2015
37 cases (35pts)
Mean age : 30.7 years(range: 19~46 years)
M:F = 34:1
Haemophilia A : 28 Haemophilia B : 6, Factor VII deficiency : 1
Rt:Lt = 18 :19
Mean BMI : 24.1 (range : 19.6~33.1)
Mean Follow-up : 29.3 months (range : 10~83 months)

Surgery indication

- Keeping joint contour
- Joint space narrowing
- Dorsiflexion limitation of ankle
- Kissing between tibia and talus (Anterior lip of tibia protrusion & hump of talar neck)

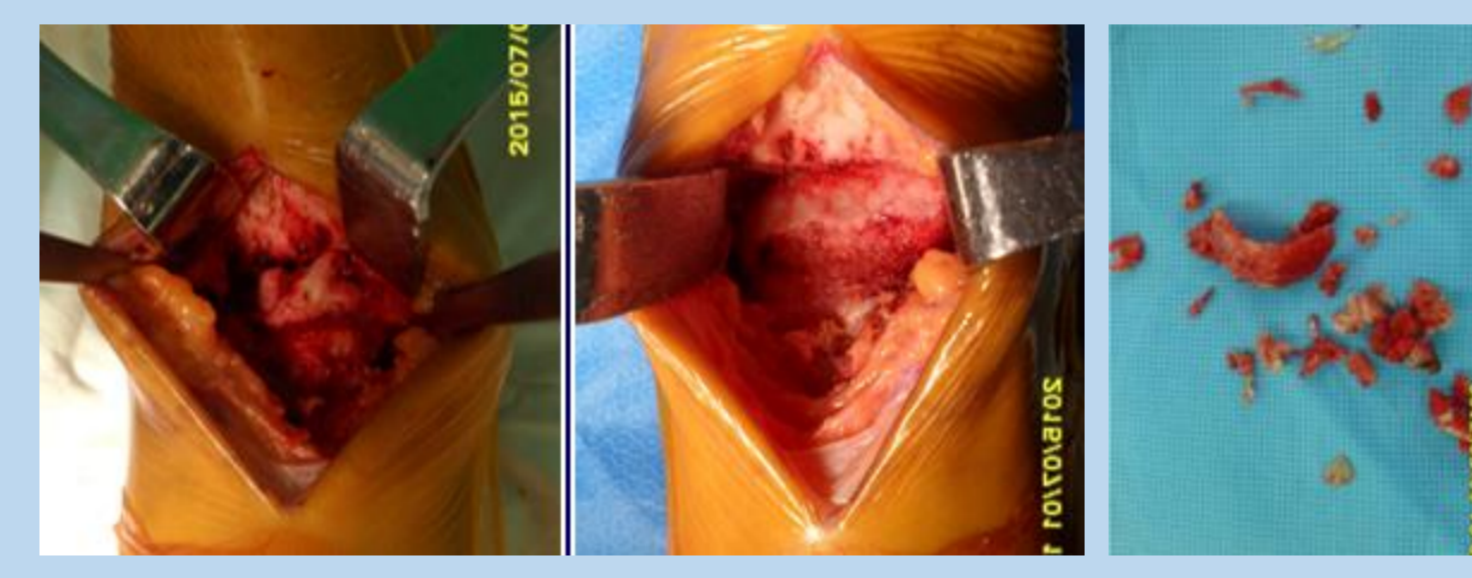


Surgery contraindication

- Severe joint pain
- Frequent joint bleeding
- Total destruction

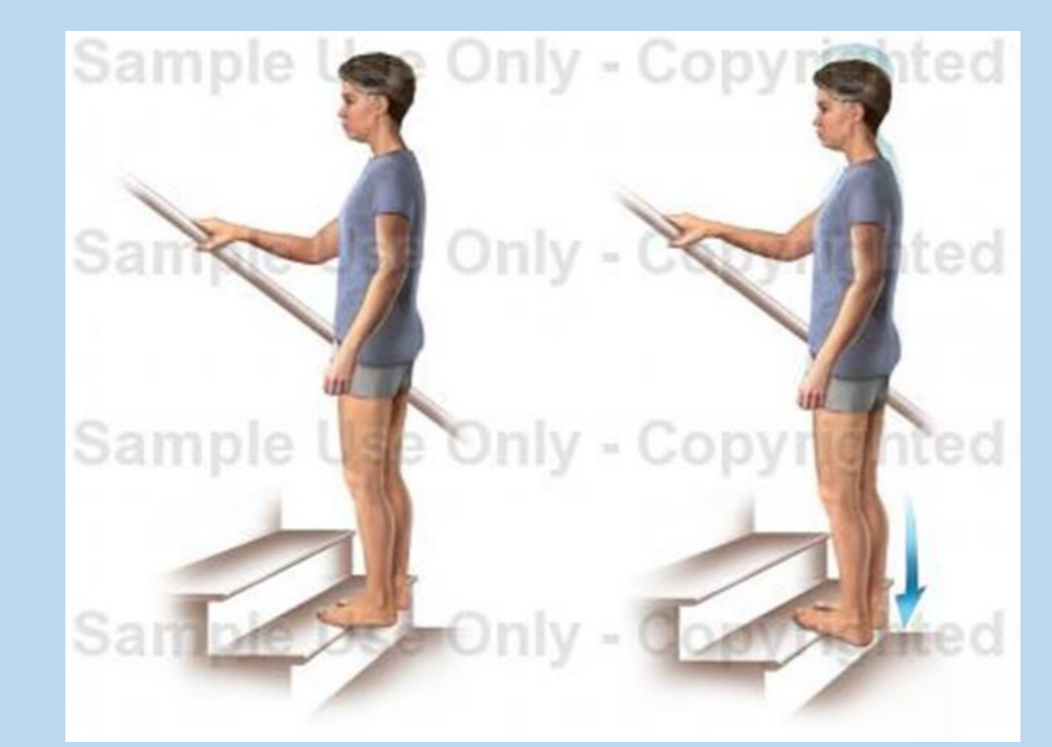
Surgical procedure

- Supine position
- Tourniquet application
- If synovectomy is needed, Do arthroscopic synovectomy first!!
- 10cm in length longitudinal incision
- Joint open with gentle traction
- Osteophyte removal with osteotome & Joint debridement
- Check C-arm
- Hemovac insertion
- Wound closure, compression dressing and short leg splint

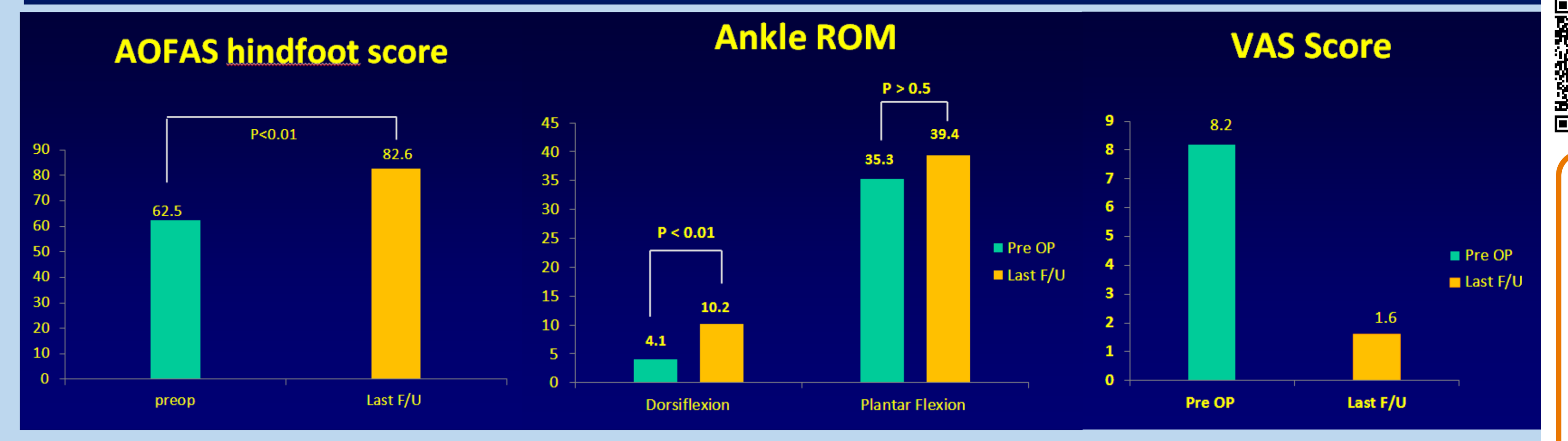


Postoperative patient care

- Short leg splint in plantar side with 90° angulation
- Coagulation factor control
- Intermittent gentle passive dorsiflexion exercise (starting from 5th postoperative day)
- Gradual gentle active and passive ROM exercise
- Non weight bearing crutch ambulation (till 4th week after surgery)
- Apply anti-plantar flexion short leg brace more than 2 months
- Continuous stair edge passive dorsiflexion stretching exercise



Results



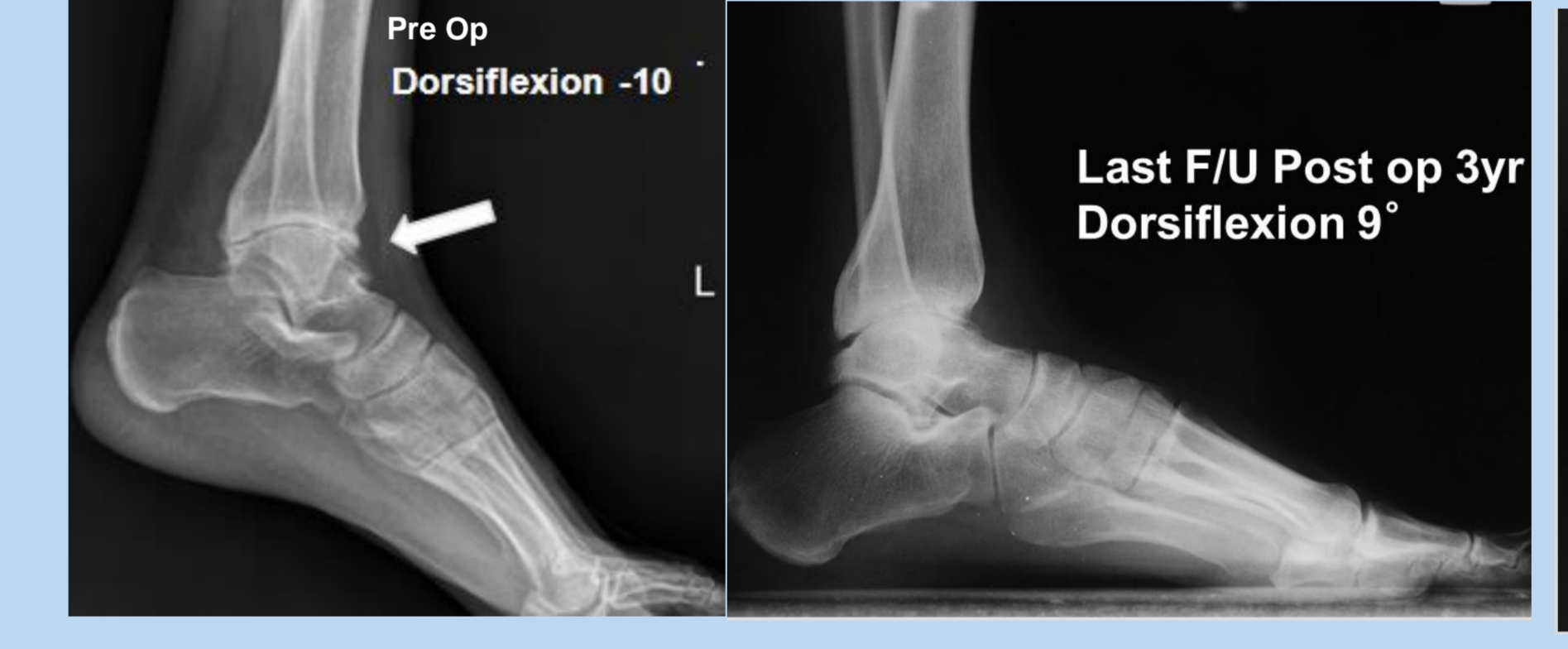
Patients Satisfaction

30/37 (81.2%)	Very good
3/37 (8.0%)	Fair
4/37 (10.8%)	No improvement

Complication

Osteophyte recurrence	4 cases (10.8%)
Infection	0 (0%)
Skin problem(sloughing)	2 cases (5.4%)

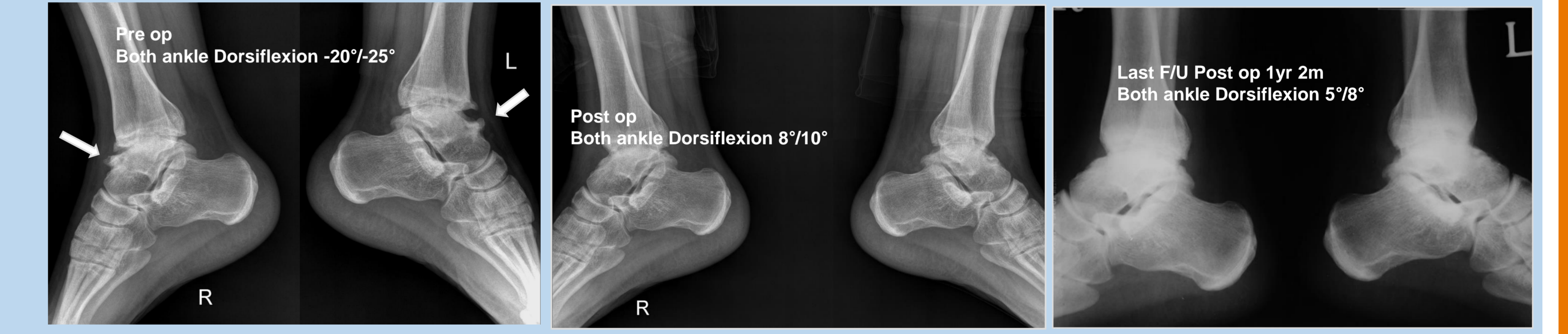
Case I 25/M



Case II 32/M



Case III 19/M



Conclusions

- Anterior osteophytes formation is very common, and it is one of the main causes to **block ankle dorsiflexion**.
- **Resection of anterior osteophytes** is efficacious and valuable method to improve ankle dorsiflexion.
- Resection in the early stage of arthropathy shows better outcome.
- **Postoperative persistent ankle dorsiflexion exercise** is mandatory.

References

Asencio JG, Leonardi C, Biron-Andreani C, Schved JF. Short-term and mid-term outcome of total ankle replacement in haemophilic patients. *Foot Ankle Surg.* 2014 Dec;20(4):285-92
 McCarthy A1, Moore A, Redhead L, McLaughlin P, Iorio A, Chowdary P. Development of haemophilic arthropathy of the ankle. *Haemophilia.* 2015 Jan;21(1):116-23
 Nickisch F, Barg A, Saltzman CL et al. Postoperative complications of posterior ankle and hindfoot arthroscopy. *J Bone Joint Surg Am* 2012; 94: 439-46