



Transradial access postgraduate course: Post-procedure protocols for haemostasis / preventing occlusion of the radial artery

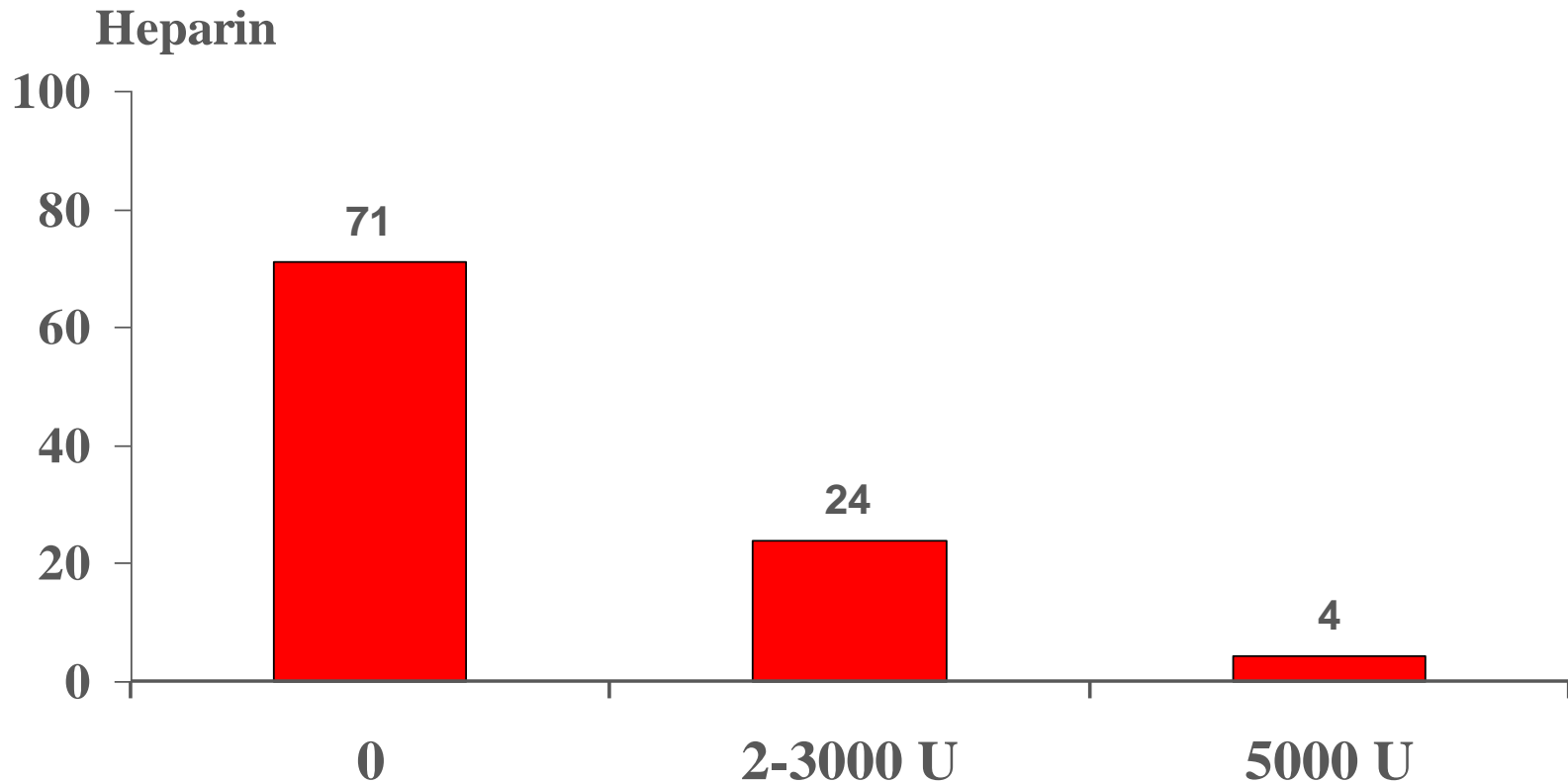


**16th Annual SA Heart Congress
Sun City
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Herzlinik Ulm**

Anticoagulation to prevent radial occlusion

Predictive factor of radial occlusion at 2 months after TR Coronary angiography



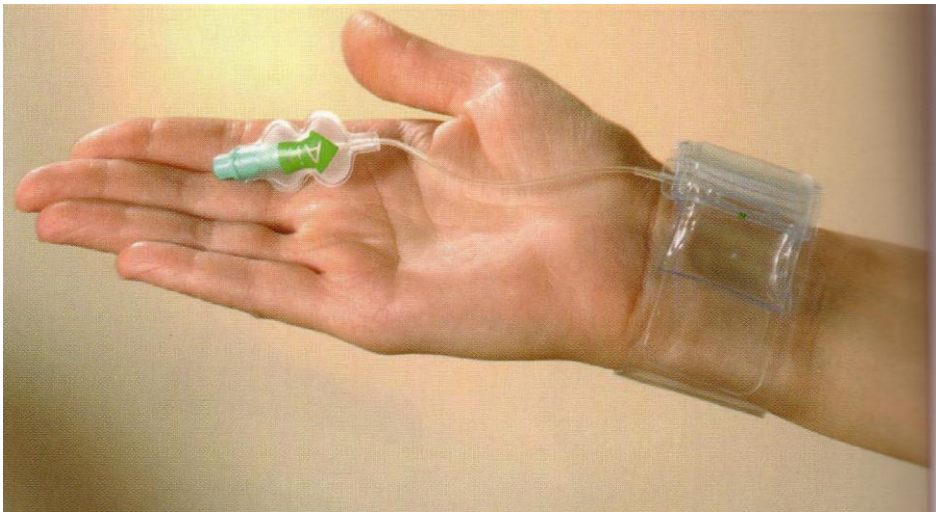
Our strategy: i.v. Bolus of 5000 I.U. of unfractionated heparin after any radial puncture

Our initial strategy: home made bandage after manual compression



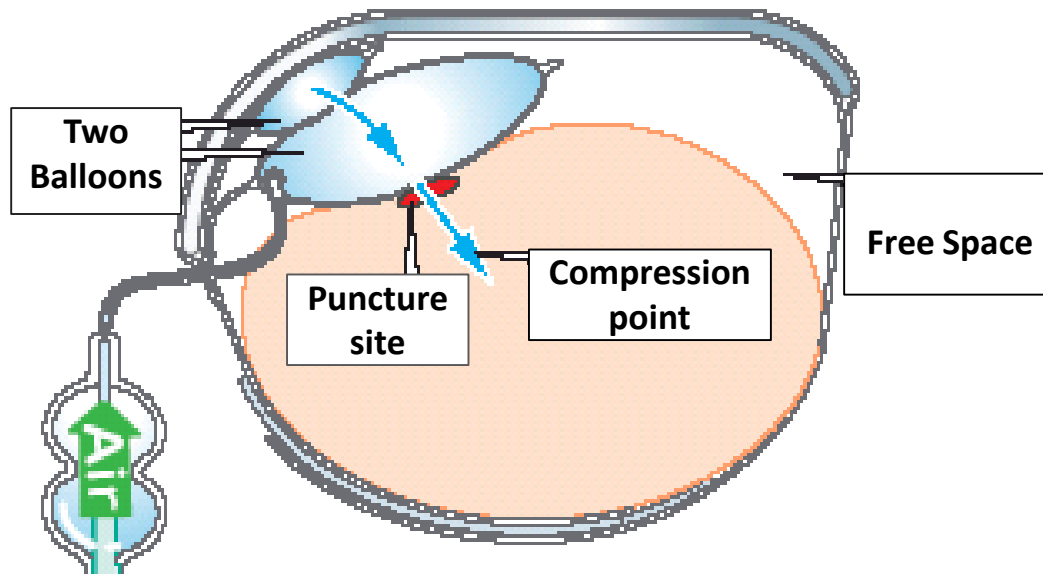
Application of pressure on the radial puncture site without compromising the ulnar artery

Our preference today: Terumo TR-Band



- individual pressure
- easy application
- visible puncture site
- comfortable
- large version available (5cm longer)

Terumo TR-Band



Haemostasis protocols after radial puncture

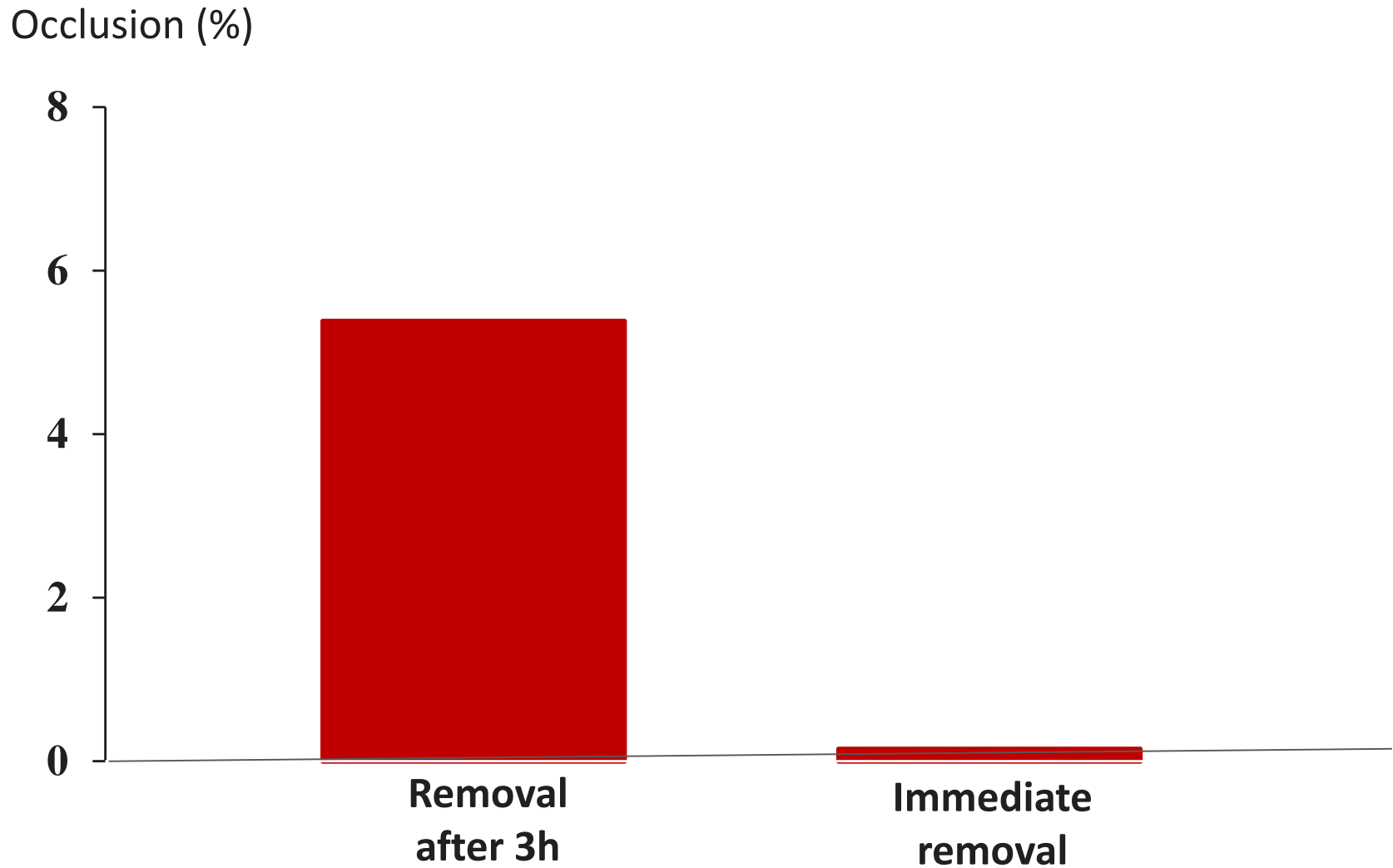
- **Hemostasis protocols are highly variable between centers with respect to compression pressure and duration**
- **Early sheath removal seems to be standard**
- **Terumo company recommends a minimum compression time of 2 hours which also seems to be respected in most protocols**

Sheath removal (Terumo TR-Band)



Removal of the sheath immediately after the procedure !

Time point of sheath removal and occlusion rate

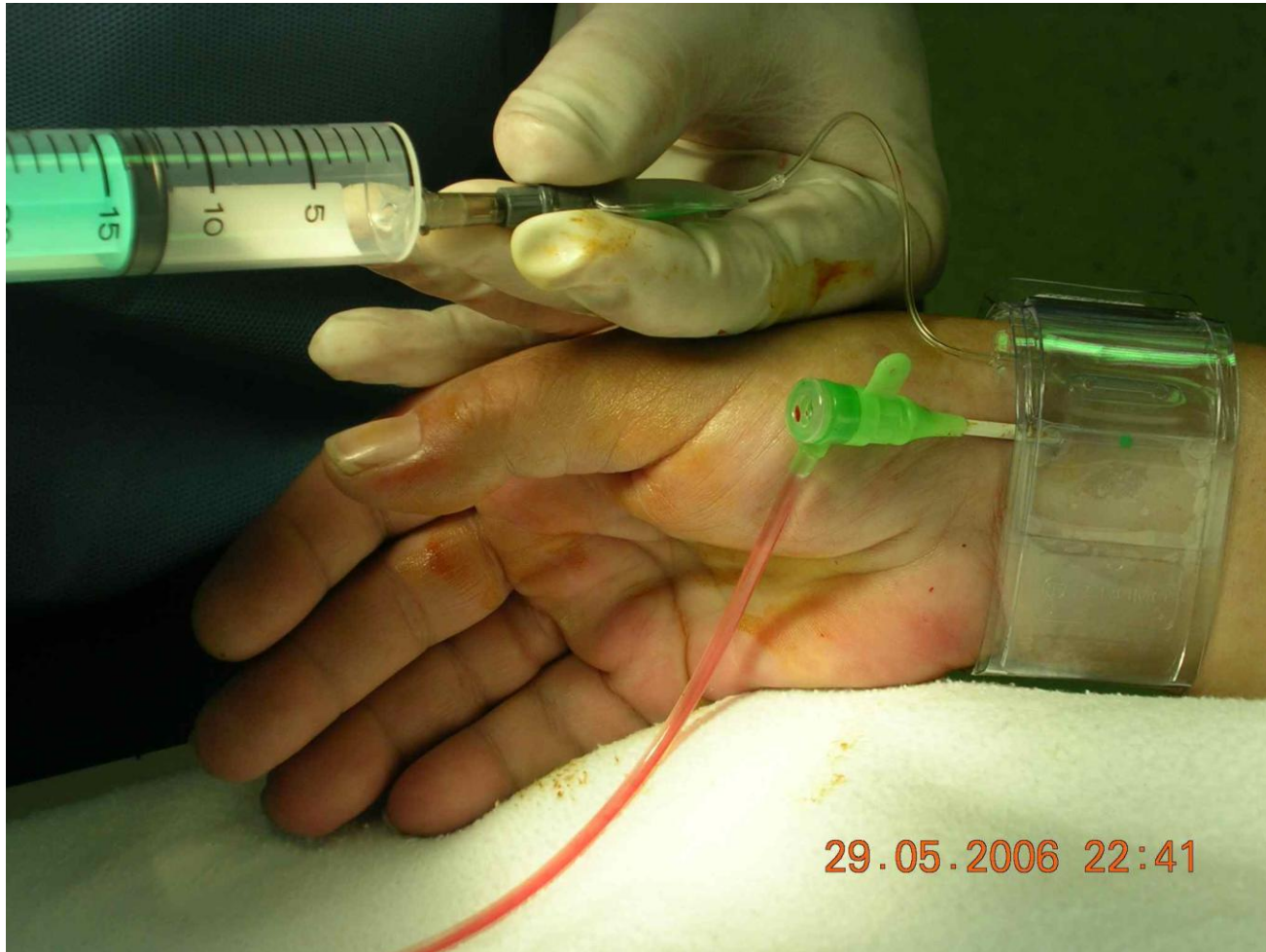


Sheath removal (Terumo TR-Band)



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Sheath removal (Terumo TR-Band)



Nominal air volume 13 ml; maximum air volume 18 ml
Our strategy is to start with 17 ml

Sheath removal (Terumo TR-Band)



Sheath removal (Terumo TR-Band)



After sheath removal we take out air slowly until bleeding starts
and reinject 2 ml of air

Our further haemostasis protocol

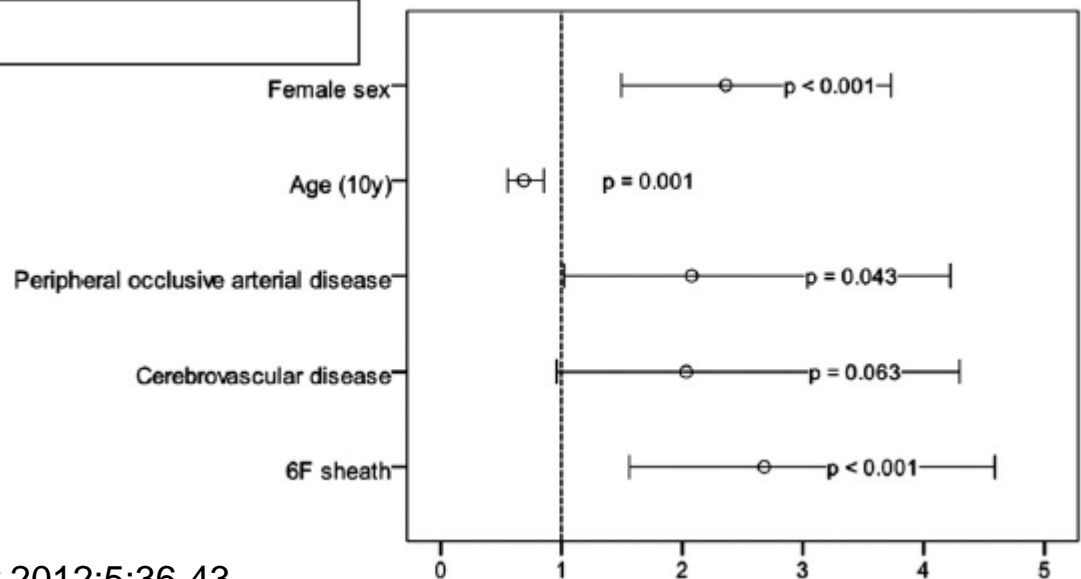
- **No deflation for 2 hours**
- **Inspections after 15 min and then all 30 min**
- **After 2 hours stepwise deflation (2-3 ml every 10-15 min), reinflation with 2 ml of air if re-bleeding**
- **Complete removal of TR Band after 3 hours**
- **In case of re-bleeding maximum compression time with the device 6 hours and afterwards switch to manual compression**
- **Full mobilisation only after removal of TR band**
- **Loose bandage until next morning and recommendation not to work with the puncture site hand**
- **No routine sonographic follow-up**

Chronic radial occlusion

Table 4. Vascular Access Site Complications in Patients With Diagnostic Catheterization Only (N = 389)

	5-F Sheath (n = 151)	6-F Sheath (n = 238)	p Value
Total number of access site complications	22 (14.6%)	82 (34.5%)	<0.001
Radial artery occlusion	21 (13.9%)	76 (31.9%)	<0.001
Pseudoaneurysm	0 (0%)	2 (0.8%)	0.524
Arteriovenous fistula	1 (0.7%)	3 (1.3%)	1.000
Moderate/severe bleeding	0 (0%)	0 (0%)	—
Mild bleeding	0 (0%)	5 (2.1%)	0.161

Values are n (%).



Key principles of our haemostasis protocol

- **Routine use of 6F Glide Sheath Slender (outer diameter equivalent to a conventional 5F sheath)**
- **After sheath removal compression with lowest effective pressure**
- **Short compression duration**



Thank you for your attention!