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Depigmented scar

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A 46 year-old male presented with a history of hypertension and dyslipidemia, and a strongly positive exercise stress test for reversible ischaemia. Echocardiogram revealed mild concentric left ventricular hypertrophy, and normal systolic function. Transradial catheterisation was performed via the right radial artery which was punctured by a 21G needle, and a 0.021” guidewire (Cordis Corp, USA) was inserted. A 6F sheath was placed and a cocktail comprising 200 μg nitroglycerin, 2.5 mg diltiazem, and 2,500 IU unfractionated heparin was administered. Angiogram revealed discrete eccentric lesion with near total occlusion of proximal left anterior descending artery. He was further loaded with prasugrel 60 mg and percutaneous coronary intervention was performed using 6.000 IU unfractionated heparin. Lesion was successfully stented by a Xience Prime everolimus-eluting stent (Abbott, USA) by deploying at 12 atm pressure achieving TIMI III flow. Radial sheath was removed immediately post procedure, and a TR band (Terumo, Japan) was placed at the puncture site which was inflated with 19 mL of air for two hours to attain complete haemostasis (Figure 1). Later, a light pressure bandage (dynaplast) was applied. This was removed the next day and the patient was discharged without any complications. At six-week follow-up, a depigmented scar was noted over the puncture site (Figure 2). This was the result of prolonged compression at higher pressure by the TR band leading to pressure.
necrosis and subsequently formation of the depigmented scar. Implementing a ‘patent haemostasis’ protocol is the best approach to avoid such complications [1, 2].

Learning points
1. Depigmented scar at puncture site is the result of undue compression - prolonged inflation at higher pressure by haemostatic device.
2. Although unusual with TR band, this may at times be seen.
3. It is very rare: observed in only four out of more than 20,000 procedures.
4. The ‘patent haemostasis’ protocol involves the placement of a compression device fairly proximal to the puncture site at the distal forearm with the placement of a small green box indicator present on it. The TR band should be inflated with 13–15 mL of air, ensuring patency of the radial artery. This should be checked at least once every 20 minutes by palpation and by observing the colour of the palm. It should be removed 1–2 hours after sheath removal.

References

Figure 1. Inflated TR band with small green box indicator present on it

Figure 2. Depigmented scar seen over the radial puncture site on follow-up at six weeks