Rumpel-Leede phenomenon after right radial catheterization procedure

A 47-year-old woman with no known comorbid conditions was admitted with effort angina classified as Canadian Cardiovascular Society (CCS) class III. Using a right radial approach, a coronary angiogram was performed with 6F introducer sheath (Medtronic, Minneapolis, Minnesota, USA) and 5F diagnostic TIG catheter (Terumo, Somerset, NJ, USA) showing focal proximal 80% disease in the left anterior descending artery (LAD). After treating with successful stenting, hemostasis was obtained with a radial artery wrist band (TRAceletTM, Medtronic, Minneapolis, Minnesota, USA). The reverse Barbeau test confirmed patent hemostasis, and the band was inflated for uniform pressure for two hours. Air at 2 cc was deflated every 10 minutes after activated partial thromboplastin time was less than 100 seconds. The following morning, the patient was symptomfree, but there was a skin rash on the dorsal aspect of the right hand (Fig. 1) and a blister on the wrist where the band was applied (Fig. 2). The hand demonstrated a non-blanching, pete-



Figure 1. Plantar aspect of the arm showing blisters at the site of radial compression band application



Figure 2. Dorsal aspect of the hand showing petechial rash

chial, and non-tender rash with clear margins. Both radial and ulnar pulses were palpable, motor and sensory function of the hands were intact, and platelets and INR were normal. This is called the Rumpel-Leede phenomenon, with focal increased venous pressures leading to capillary rupture into the dermis, resulting in petechial rash or blisters (1). The Rumpel-Leede phenomenon is classically described after prolonged blood pressure cuff inflation and has also been reported in collagen vascular diseases like systemic lupus erythematosus (2).

Informed consent: Written informed consent to share the images was obtained from the patient according to the Declaration of Helsinki. Anonymity was preserved by no identification in the images. Rawalpindi Institute waived off ethical review approval.

References

- Khoury Abdulla R, Safian RD. Rumpel-Leede Phenomenon After Radial Artery Catheterization. Circ Cardiovasc Interv 2018; 11: e006507. [Crossref]
- Sud M, Madan M. Rumpel-Leede Phenomenon: Acute Dermal Capillary Rupture Complicating Radial Artery Cannulation. JACC Cardiovasc Interv 2018; 11: 1900-1. [Crossref]

Jahanzeb Malik Department of Cardiology, Rawalpindi Institute of Cardiology; Rawalpindi-*Pakistan*

Address for Correspondence: Jahanzeb Malik, MD,
Department of Cardiology, Rawalpindi Institute of Cardiology;
Rawalpindi-Pakistan
Phone: 00923215668347
E-mail: Heartdoc86@gmail.com
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www.anatoljcardiol.com DOI:10.5152/AnatolJCardiol.2021.117

