

Embolization for a Spontaneous Chest Wall Hemorrhage

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A 58-year-old woman was admitted to the hospital for sacral wound debridement. The patient had a history of hypercoagulability and was on anticoagulation medication before and after surgery. She presented to the interventional radiology department for treatment of a spontaneous chest wall hemorrhage several weeks after her surgery.

After using standard techniques to access the right common femoral artery, a 5-F (1.67-mm) sheath was placed. Subsequently, a VERT catheter and a hydrophilic guidewire were used to cannulate the right axillary artery. An angiogram failed to show the source of bleeding (Figure 1). The VERT catheter was retracted and, using a 0.021-inch (0.53-mm) Direxion™ Torqueable Microcatheter and Fathom®-16 Guidewire, the thyrocervical trunk was cannulated. The following angiogram result was also negative.

The VERT catheter was repositioned proximal to the internal mammary artery. The Direxion™ Microcatheter

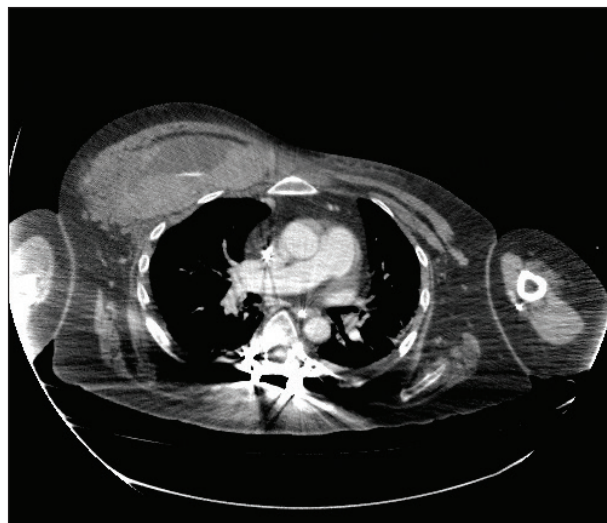


Figure 1. A CT scan showing active hemorrhage.

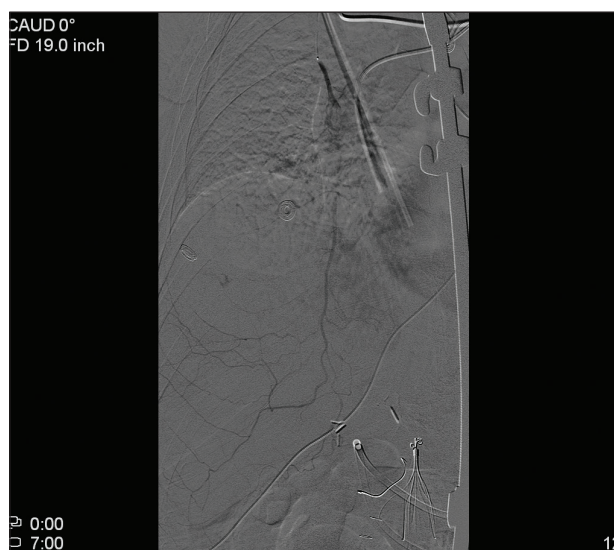


Figure 2. An angiogram showing questionable blush.



Figure 3. There was active hemorrhage from a perforator vessel.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.

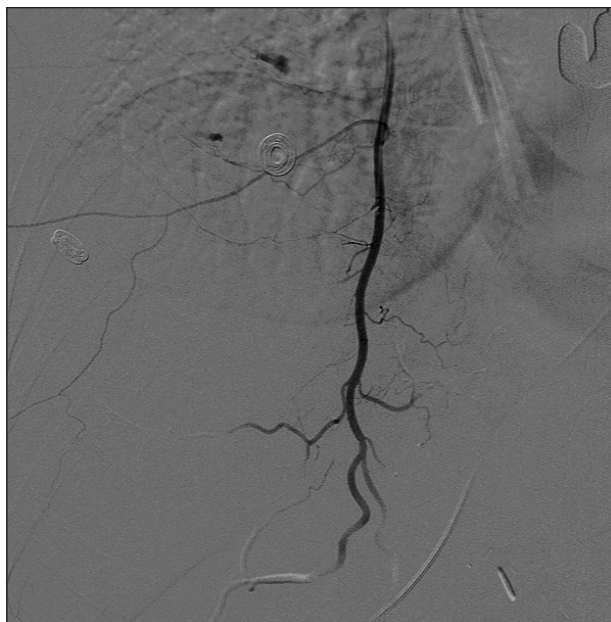


Figure 4. Gelfoam slurry resolved the initial hemorrhage, but two additional areas of bleeding were found.

and Fathom®-16 Guidewire were used to cannulate the right internal mammary artery. The angiogram showed a questionable blush (Figure 2). The Direxion™ Microcatheter was advanced below the level of the diaphragm. The angiogram showed active hemorrhage from a perforator vessel (Figure 3). Gelfoam slurry was instilled through the Direxion™ Microcatheter. A follow-up angiogram showed no further hemorrhage from that artery; however, two additional vessels were bleeding (Figure 4), which also responded well to gelfoam (Figure 5).

DISCUSSION

Based on the CT scan, it was originally thought that the treatment of this hemorrhage would require coil embolization; therefore, a 0.021-inch (0.53-mm) microcatheter would be required. I also thought that we would need higher flow rates to visualize the area of



Figure 5. The final angiogram showing no area of active hemorrhage.

hemorrhage. Normally, this would require starting with a 0.027-inch (0.69-mm) microcatheter and then exchanging for a 0.021-inch (0.53-mm) microcatheter for coil placement. By starting with the 0.021-inch (0.53-mm) Direxion™ Microcatheter, this reduced overall procedure time and equipment cost. ■

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