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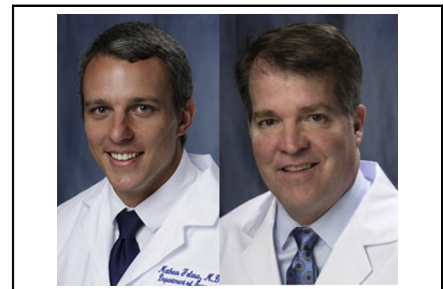


Commentary: The devil is in the details

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Ishii and colleagues¹ report the unfortunate case of a man who sustained aortic graft perforation by the smoothed edge of a fractured rib that had not been closed. Despite a rapid return to the operating room, the patient died. The authors provide a comprehensive description of 7 other cases of graft perforation due to contact with either calcification or bone.

Although this complication is rare, it can certainly be catastrophic when it occurs. This series highlights the mechanical susceptibility of Dacron to friction from bone or calcifications, even when these are not sharp. Nonanastomotic primary aortic Dacron graft failure occurring between 13 and 22 years postimplantation has been described.² Primary graft failure in smaller-diameter vascular grafts has been reported as soon as 13 months postimplantation.³ Analysis of these long-term cases reveals broken polyester filaments. It follows that grafts subject to unusual mechanical stress in the form of friction due to an adjacent hard object may fail. These cases should raise awareness in aortic surgeons. Special attention must be given to ensuring secure chest wall closure, and posterior rib stumps must be managed either with careful reapproximation or placement of tissue between graft and bone.



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CENTRAL MESSAGE

Raising awareness of this rare but lethal complication may help surgeons avoid this complication. Fractured ribs should be carefully managed during any initial operation.

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