Endovascular Repair Using Suture-Mediated Closure Devices following Inadvertent Subclavian Artery Catheterization

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Case Summary

Accidental subclavian artery cannulation is an uncommon but potentially serious complication of central venous catheterization. Removal of a catheter inadvertently placed in the subclavian artery can lead to substantial bleeding, as achieving hemostasis in this area through manual compression presents considerable difficulty. Additionally, surgical treatment might be unsuitable for high-risk patients due to comorbidities.

Here, we report a case of an inadvertently-inserted 11.5-French hemodialysis catheter in the subclavian artery during internal jugular venous catheterization. We performed percutaneous closure of the subclavian artery using three 6-French Perclose Proglide® devices with a balloon tamponade in the proximal part of the subclavian artery. Closure was completed without embolic neurological complications.

Take Home Message

Sequential implementation of suture-mediated closure devices with a temporary balloon tamponade backup can be considered as a reasonable alternative for poor surgical candidates with inadvertent arterial catheterization at non-compressible sites.

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