

Gaining adequate hemostasis is a critical part of any interventional procedure requiring arterial access. While manual compression is currently the gold standard for achieving hemostasis, vascular closure devices (VCD) have been developed with the hope of providing quicker, more effective hemostasis, ultimately reducing recovery time for the patient. However, **VCD use has been associated with its own set of complications ranging from hematomas to pseudoaneurysm formation.**^{1,3} Furthermore, the lack of established guidelines has slowed down efforts for widespread VCD use.² Though newer devices appear to be safer, further studies are still required. And often the safety and efficacy of devices are associated with operator experience and comfort.⁴ Alternatively, **our institution has implemented a novel technique of doing transarterial chemoembolizations (TACE) without a sheath as a substitute for VCD use.**

Our study aims to demonstrate that many interventional oncology cases can be performed without a hemostatic sheath, which in turn lessens the potential complications and cost of the procedure.



Sheathless TACE: It Makes Cents!

KARTIK KANSAGRA, BS; JAMES CARIDI, MD
TULANE UNIVERSITY SCHOOL OF MEDICINE, DEPT. OF RADIOLOGY



MATERIALS

52 noncoagulopathic patients (45 males, 7 females) 35-79 years of age underwent a drug eluting bead procedure. **In 24 patients the procedure was attempted without a hemostatic sheath using a 0.035" wire, 4 Fr SOS 0 catheter** and a microcatheter. In each of the remaining cases, either a 4 or 5 Fr hemostatic sheath was employed. If there was evidence of bleeding at the puncture site, the sheathless patients were converted to a 4 Fr sheath. Manual compression for hemostasis was performed in all cases. **Bed rest for those with and without sheaths before ambulation was 6 and 2 hours respectively.**

RESULTS

Of the 24 patients attempted sheathless, 20 (83%) were successful to completion. **These 20 patients remained at bed rest for 2 hours and were ambulated and discharged the same day without evidence of post-operative puncture site complications.** 4 (17%) of the 24 patients required conversion to a 4 Fr sheath. Of the remaining 28 patients who were treated using hemostatic sheaths and 6 hours of bed rest, 2 (5%) had mild bleeding at the puncture site. The intent of the procedure was accomplished in all cases.

Using a 4 Fr 0.038" end hole catheter and high flow microcatheter in interventional oncology appears to be **efficacious and safe.** It also permits early ambulation and discharge, thereby **eliminating the need for the added cost and risks of arterial closure devices.**

WORKS CITED

1. Das R, Ahmed K, Athanasiou T, Morgan R a, Belli A-M. Arterial closure devices versus manual compression for femoral haemostasis in interventional radiological procedures: a systematic review and meta-analysis. Cardiovasc Intervent Radiol. 2011;34(4):723-738. doi:10.1007/s00270-010-9981-0.
2. Hon L-Q, Ganeshan a, Thomas SM, Warakaulle D, Jagdish J, Uberoi R. An overview of vascular closure devices: what every radiologist should know. Eur J Radiol. 2010;73(1):181-190. doi:10.1016/j.ejrad.2008.09.023.
3. Hon L-Q, Ganeshan A, Thomas SM, Warakaulle D, Jagdish J, Uberoi R. Vascular closure devices: a comparative overview. Curr Probl Diagn Radiol. 2009;38(1):33-43. doi:10.1067/j.cpradiol.2008.02.002.
4. Smilowitz NR, Kirtane AJ, Guiry M, et al. Practices and complications of vascular closure devices and manual compression in patients undergoing elective transfemoral coronary procedures. Am J Cardiol. 2012;110(2):177-182. doi:10.1016/j.amjcard.2012.02.065.



Tulane
University

SCHOOL OF MEDICINE