



Vascular Closure presentation by UCLA at 2016 SIR Conference

Single-Center Retrospective Comparison of the Safety and Efficacy of 5 Arterial Vascular Closure Devices in Interventional Radiology

Presented During: Arterial: Other

Wed, 4/6: 3:45 PM – 3:54 PM

1745

Scientific session

Vancouver Convention Centre

Room: 116/117

Objective

Vascular closure devices (VCDs) are commonly used to achieve hemostasis of arterial access sites, but there is little comparative data on the variety of VCDs currently in clinical use. We reviewed the VCD experience at our institution to determine the safest and most effective VCD.

Materials

Retrospective analysis of 907 consecutive arterial procedures in Interventional Radiology from June 2012 to June 2014 was performed. Five VCDs were used: Angio-Seal (N = 478), FISH (N = 56), Mynx (N = 56), Perclose (N = 61), and Starclose (N = 68). Patients who underwent manual compression (N = 188) without use of VCDs were also studied as a comparison group. Patient demographics and pre-procedural laboratory parameters were recorded. The technical success rate for achievement of hemostasis and complication rate were noted.

Results

Complete hemostasis rate was 93.5% for Angio-Seal, 83.9% for FISH, 53.6% for Mynx, 73.7% for Perclose, and 76.5% for Starclose ($p < 0.001$). The differences among the devices were statistically significant. Total complication rate (major and minor) was 7% for Angio-Seal, 1.8% for FISH, 14.5% for Mynx, 6.6% for Perclose, 1.5% for Starclose, and 11.2% for manual compression; these differences were statistically significant ($p = 0.015$). 14 major complications (1.5%) were encountered: 9 with Angio-Seal (1.3%), 1 with Mynx (1.8%), 1 with Starclose (1.5%), and 3 with manual compression (1.6%);

Vascular Closure presentation by UCLA at 2016 SIR Conference

these differences were not statistically significant. Of the demographic and laboratory parameters studied, none were significantly correlated with hemostasis failure or development of complications.

Final ID

351

Conclusions

In our institutional experience, Angio-Seal is the device with the best technical success rate. Major complications of VCDs were rare. No patient demographics or pre-procedural laboratory parameters were found to be statistically significant predictors of success or complications.

Co-Author

Justin P. McWilliams, MD, UCLA

Scientific Session Presenter

Matthew Elmasri, David Geffen School of Medicine at UCLAe

Abstract Categories

Arterial Interventions: Other

