4:03 PM Abstract No. 300

Initial experience with trans radial artery access for management of high-grade splenic trauma at a major metropolitan trauma center

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Purpose: Trans-femoral endovascular embolization is a well-established and effective therapy for achievement of hemorrhage control in abdominal-pelvic trauma. Pelvic binders are often utilized for early stabilization of pelvic injuries but limits trans femoral access (CF), necessitating alternative arterial access for management. The purpose of this study is to report the initial experience with trans radial (TR) embolotherapy in management of moderate-high grade splenic traumas.

Materials: A retrospective review of percutaneous management of splenic injuries from the trauma registry at a level 2 trauma center was performed form December 2015 to September 2016. 13 patients (TR/CF: 4/9) had documented splenic injuries as demonstrated on emergent trauma CT imaging. For the TR arm, the usual arterial antispasmodic binders are often utilized for early stabilization of pelvic injuries but limits trans femoral access (CF), necessitating alternative arterial access for management. The purpose of this study is to report the initial experience with trans radial (TR) embolotherapy in management of moderate-high grade splenic traumas.

Results: 13 patients underwent conventional angiography during the study period of which 12 (92%) (6 males, 7 females) required embolization; one patient was excluded due to the splenic artery occlusion on angiography. 8 patients had CF, and 4 had TR access. The mean patient age for CF and TR was 47.2/63.5 years, respectively. All patients sustained splenic injuries of grade IV. The mean proprocedural INR for CF/TR was 1.2 (rng: 1.2-1.4) / 1.5 (rng: 0.97-2.0). The mean Door-to-closure/fluoroscopic times were for CF and TR was 115.8/22.0 and 115.8/15.1 minutes. Hemorrhage was effectively controlled asymptomatic radial artery occlusion occurred (0.3%). No mean follow up was 3.4 months (01.1-11.6); a single further delayed complications were encountered.

Conclusions: Rapid hemostasis after TR intervention can be safely achieved using 25 minutes of patent hemostasis in appropriately selected patients.

4:12 PM Abstract No. 301

Safety and efficacy of a rapid deflation algorithm for patent hemostasis following radial intervention (PROTEA)

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Purpose: To evaluate the safety and efficacy of a rapid deflation algorithm for patent hemostasis following radial intervention.

Materials: A retrospective review was undertaken analyzing radial procedures performed from June 2014 to July 2016. Patient data was reviewed documenting age, gender, procedure, international normalized ratio (INR), platelets (PLT), sheath size, and complications. PROTEA is performed using a proprietary hemostasis balloon and hemostatic disc. The disc is placed over the skin entry site and the hemostasis balloon secured in place and inflated according to specification. Using patent hemostasis, the balloon is deflated within 25 minutes of inflation. 50% of the air in the balloon is removed at 15 minutes and the remaining air 15 minutes later. The deflated balloon is left in place for 15 minutes following deflation and the site monitored for hematoma or bleeding. The patient is discharged 2 hours post hemostasis with the hemostatic disc remaining in place for 24 hours.

Results: 323 procedures were performed with PROTEA; 186 males and 137 females, mean age 60.4 years (27-93 years). Mean INR 1.09 (0.9-1.9) and PLTs 202.7 (37-645). 206 patients underwent a single transradial procedure, 40 patients underwent 2 procedures, 11 patients 3 procedures, and 1 patient 4 procedures. Procedures included transarterial chemoembolization (130), uterine fibroid embolization (72), Y90 mapping (57), Y90 administration (33), mesenteric embolization (12), diagnostic angiography (14), vascular stenting (8) and vascular angioplasty (2). Sheath sizes ranged from 4Fr to 7Fr equivalents, including low profile vascular sheaths and sheathless guide catheters. 3 grade 1 hematomas occurred immediately following deflation (0.92%) and 2 cases of radial arteritis (0.62%) occurred at 3 and 5 days respectively; all resolved with conservative management. Mean follow up was 3.4 months (01.1-11.6); a single asymptomatic radial artery occlusion occurred (0.3%). No further delayed complications were encountered.

Conclusions: Rapid hemostasis after TR intervention can be safely achieved using 25 minutes of patent hemostasis in appropriately selected patients.

4:21 PM Abstract No. 302

Use of a novel hemostasis device after peripheral arterial access interventions

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Purpose: We report initial experience using a novel hemostasis device after peripheral arterial access interventions which uses highly focused pressure at the puncture site via an adjustable ratcheting mechanism.

Materials: A prospective QA database identified 70 interventions with 72 arterial access sites (43 M: 27F, mean age 61.5 years) over a 30-month period where hemostasis after sheath removal was achieved using the VasoStat device, including complex lower limb revascularization (n = 23), mesenteric embolization/stenting (n = 7), transarterial