

OC1.1

Is it Trivial That Interventional Radiologists Comply with Radiation Protection Practices? Maybe Not!

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Background: Radiologists are at higher risk of adverse health effects due to their occupational radiation exposure; therefore, applying protection techniques is imperative. Studies on radiologists' compliance in this regard are scarce. We aimed to assess compliance with radiation safety practices among radiologists. **Method(s):** Questionnaires were distributed to radiologists in tertiary hospitals. The questionnaire was designed to assess compliance in three domains: using personal protective devices, using exposure-reduction techniques during fluoroscopic exposures, and using personal dose-monitoring devices. Descriptive analysis of the compliance was performed. **Result(s):** Sixty-two radiologists were included in the analysis. Use of leaded aprons and thyroid shields was commonplace, whereas only 3.2% ever use leaded eyeglasses. About half of the radiologists always considered reducing the time of exposure and avoided exposure by the primary beam, and the other half did that sometimes. Most of the radiologists (66.1%) always complied with reducing the number of unnecessary exposures, and the rest only complied sometimes. Most of the radiologists (93.5%) always used single personal dose-monitoring devices, most commonly at the neck level over the collar. There was no difference in compliance between different sexes, position descriptions, hospital types, hospital sizes, or years of experience. **Conclusion(s):** Future compliance improvement strategies for radiologists should focus on use of thyroid shields and leaded eyeglasses and use of exposure-reduction techniques during fluoroscopic operations.

OC1.2

Mechanochemical Endovenous Ablation, Mechanochemical Ablation: A Novel Endovenous Technique without Tumescence Anesthesia and Comparable Results for Treatment of Varicose Veins

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Background: Minimally invasive endo-venous techniques have revolutionized the treatment and outcome of insufficient truncal veins and are associated with a good outcome. The use of thermal energy (EVLT- endo-venous laser therapy) requires the instillation of tumescence anesthesia around the vein. Mechanochemical endovenous ablation (MOCA) combines mechanical endothelial damage, using a rotating wire/ prongs, with simultaneous infusion of a liquid foam sclerosant. Studies using MOCA™ in both great and small saphenous veins showed good anatomical and clinical results with fast and equivalent post-operative outcome and recovery. **Method(s):** Mechanochemical

endovenous ablation versus radiofrequency ablation in the treatment of primary great and small saphenous vein insufficiency is a single center study in which total of 30 patients (40 limbs) randomized (1:1) to MOCA™ and EVLT are studied. Patients with primary great and small saphenous vein varicosity and / or incompetence, are studied. The primary endpoint is anatomic success, defined as occlusion of the treated veins objectified with duplex ultrasonography at 3 months of follow-up. Post-procedural pain, initial technical success, clinical success, complications and the duration of the procedure and patient satisfaction were studied and compared. Both groups evaluated on an intention-to-treat principle. **Result(s):** The clinical (sign and symptoms) and radiological (on doppler ultrasound) outcome of both MOCA and EVLT are almost comparable. The peri-procedural pain is significantly less in the MOCA. There is no need of multiple needle injections to inject tumescence anesthesia in MOCA, so it is easy to perform MOCA. Patient satisfaction was better in MOCA. Varicosities associated and connected with GSV and SSV also got sclerosed through sclerosant injected into GSV and SSV. **Conclusion(s):** Significantly decreased peri-procedural pain and ease of the MOCA therapy in the treatment of varicose veins can make it treatment of choice in the treatment of varicose veins over EVLT as per our study.

OC1.3

Does Left Ovarian Vein Reflux Cause a Pseudo-Nutcracker Effect Creating Meso-Aortic Narrowing of the Left Renal Vein?

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Background: Trans-abdominal and trans-vaginal ultrasounds are performed for pelvic venous reflux. Patients are scanned at diagnosis and at 6-8 weeks following Pelvic Vein Embolization. Our aim was: 1) Identify the proximal extent of Left Ovarian Vein (LOV) reflux. 2) Evaluate the left renal vein (LRV) and identify or exclude Nutcracker phenomenon as a cause of LOV reflux. 3) Compare changes in appearance or calibre of the LRV following PVE. **Method(s):** 24 female patients underwent embolisation between September 2016 and April 2017. Scanning was performed with patients erect and 30 degree. Diameters of the hilar and mesoaortic segments were recorded. Proximal versus distal LOV reflux prior to PVE was noted. 3 patients were excluded. **Result(s):** (1) Group 1: 11 patients with LOV reflux had pre PVE hilar to mesoaortic diameter ratios with a mean of 5.0 and post PVE diameter ratios with a mean 2.0 (p=0.001). (2) Group 2: 10 patients, 8 without LOV reflux and 2 with LOV reflux distally had pre PVE ratios with a mean of 2.1 and post PVE with a mean ratio of 2.0 (p=0.799). 5 patients in Group 1 had hilar to mesoaortic diameter ratios >5 prior to PVE with suspicion of Nutcracker. These 5 included both patients with PCS who experienced complete symptomatic resolution post PVE. Post PVE all patients in Group 1 had normal diameter ratios with none showing abnormal ratios. **Conclusion(s):** Nutcracker phenomenon has been suggested as a cause of LOV reflux,