

pelvic pain, urinary symptoms, and ejaculatory pain. It is diagnosed by semen, urine, or prostatic secretions cultures. Classic treatments usually focus on symptomatic relief with 4–6 weeks repeated courses of fluoroquinolones and anti-inflammatory agents; however, more than 50% of these patients experience repeated recurrence of infection and worsening symptoms. Our study aims at assessing early results of prostatic artery embolization (PAE) in four patients with recurring CBP. **Methods:** From March to December 2018, four cases with CBP diagnosed by semen cultures all presenting with recurring symptoms and infection for 4 times per year or more, with mean prostatic volume of 42 cc, were referred to us by urologists for PAE. Patients were consented it is a clinical trial. All patients received a 4 weeks preprocedural course of fluoroquinolone or nitroferuntoin according to culture then stoppage for a week then repeating the culture. On a negative culture basis, bilateral PAE was done with 100–300 μ spherical particles. **Results:** Bilateral PAE was feasible in the 4 patients with complete disappearance of prostatic blush and pruned prostatic artery as angiographic endpoint. No major complications occurred. Postoperative dysuria and urgency took place for a week. Prostate size decreased to a mean of 33 cc 1 year after embolization. Three patients reported marked subjective improvement of urinary symptoms; none of them needed further cultures for 1 year. One patient had recurring symptoms 7 months after embolization despite decrease in prostate size and was treated by regular measures. **Conclusion:** In our very small series, PAE has shown a potential role in the treatment of CBP; further studies are needed on larger number of patients are needed for proper procedure assessment.

OR4.10

Image-Guided Percutaneous Sclerotherapy of Orbital Low-Flow Vascular Malformations

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Objectives: To evaluate the effectiveness and safety of percutaneous sclerotherapy using bleomycin for orbital low flow vascular malformations. **Methods:** Between October 2015 and August 2019, we prospectively evaluated 24 patients who clinically and radiologically diagnosed with orbital low-flow vascular malformations. Sixteen females and eight males were included in the study, ranging in age from 3 to 46 years (mean: 13.4 ± 10.3). Twenty-two patients presented with proptosis and limited ocular motility, 15 patients with dystopia, and 2 patients with amblyopia and exposure keratitis. Ophthalmological assessment, ultrasound, and magnetic resonance imaging were performed before and 6 weeks after treatment. Under general anesthesia, orbital lesions were punctured guided by ultrasound, fluoroscopy, and cone-beam computed tomography. Before sclerotherapy, small volume of Omnipaque was injected to exclude vascular communication or contrast leakage, and then bleomycin was instilled. Procedures were repeated at 8-week intervals, depending on clinical and radiological response. The follow-up period ranged from 3 to 40 months, with a mean: 19.5 ± 12.4 . **Results:** Fifteen patients were diagnosed with lymphatic malformations, and nine patients with venous malformations. Forty-one sclerotherapy sessions were performed (range: 1–3,

mean: 1.7 ± 0.8). Bleomycin dose ranged 2–20 IU (mean 7.2 ± 4.6). Clinically, there was a significant reduction in the degree of proptosis ($P = 0.001$) and dystopia ($P = 0.002$), with no significant changes in the visual acuity. Radiologically, there was significant reduction in the maximum lesions diameters and volumes ($P = 0.001$ and $P = 0.005$, respectively). Transient pain, edema, and ecchymosis occurred following the procedure with no major complications encountered. **Conclusion:** Intralesional bleomycin therapy could be a safe and effective treatment for orbital low-flow vascular malformations with low rate of complications.

OR4.11

Dosimetry of Vascular and Interventional Radiology Procedures: Five-Year Analysis in a Tertiary Care Institution in Saudi Arabia

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Objectives: To evaluate the dosimetry of vascular and interventional radiology (IR) procedures at a single tertiary care institution and compare it to the previously reported international diagnostic reference levels. **Methods:** This was a retrospective review of the radiation doses recorded by the dose management software (DoseWatch™) for all vascular and interventional procedures done between January 2015 and December 2018 at King Abdulaziz Medical City, Riyadh, Saudi Arabia. Pediatric procedures were excluded from the current analysis. The height, weight, age (>14 years), sex, reference dose point air kerma (mGy), dose area product (DAP) ($\text{Gy}\cdot\text{cm}^2$), and fluoroscopy time (s) were collected, and the body mass index (BMI) was calculated. Categorical data are presented as percent frequencies. Continuous variables are presented as mean, median, standard deviation, 25th and 75th percentile, and ranges. Two independent sample *t*-test was used to compare our study mean values with RAD-IR study and CIRD study. Person's correlation was performed to assess for the correlation between the study variables. Statistical significance was defined as $P < 0.05$. SAS Version 9.4 (Cary, NC, USA) was used for all the analyses. Graphic representations were created using spreadsheet software (Excel 2017; Microsoft, Redmond, Washington, USA). **Results:** Data of 3444 procedures in 2333 adults were recorded. The study included 1935 male patients (56.18%) and 1509 female patients (43.82%) with a mean age of 56.6 (15–117 years). Analysis of 22 different IR procedures was done. Peripherally inserted central catheter placement was the most commonly performed procedure ($n = 1045$, 30.3%) followed by tunneled catheter placement ($n = 784$, 22.76%), gastrostomy ($n = 392$, 11.4%), and percutaneous transhepatic cholangiography ($n = 205$, 5.95%). Trans jugular intrahepatic portosystemic shunt (TIPSS) creation had the highest mean fluoroscopy time (78.65 min) followed by uterine fibroid embolization (33.47 min), TIPSS revision (31.79 min), and varicocele embolization (31.75 min). TIPSS creation had the highest mean DAP ($1649.35 \text{ Gy}\cdot\text{cm}^2$) followed by hepatic chemoembolization ($588.64 \text{ Gy}\cdot\text{cm}^2$), hepatic artery mapping ($573.75 \text{ Gy}\cdot\text{cm}^2$), and TIPSS revision ($539.12 \text{ Gy}\cdot\text{cm}^2$). TIPSS creation was associated with the highest mean reference dose (6.72 Gy), followed by hepatic chemoembolization (3.18 Gy), hepatic artery mapping (2.44 Gy), and embolization (2.24 Gy). Compared to a recent and the RAD-IR studies, TIPSS creation and transarterial chemoembolization are