P095 Analysis of radiation received in the first year follow-up of patients underwent flexible ureteroscopy in 2017

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Introduction & Objectives: To quantify the effective radiation dose associated with the first year of follow-up after ureteroscopy in patients with urolithiasis.

Materials & Methods: Retrospective review was performed for consecutive patients that underwent flexible ureteroscopy during 2017. Number and modality of imaging studies were collected. Effective radiation exposure (ERE) doses were calculated from average values for each imaging study.

Results: There were 68 males and 42 females patients with a mean age of 55 years (range 22-91). Patients underwent an average of 0.59 (range 0-4) plain radiographs (KUB), 0.13 (range 0-2) CTs without I.V. contrast, 0,09 (range 0-2) URO-CT, 0.63 (range 0-2) intravenous urograms, and 0.52 (range 0-2) ultrasounds (US) during first year of follow up. The average calculated ERE dose was 8.36 mSv (range 0-85.30). Although 17 (15.7%) patients exceeded 15 mSv during the first one year of follow-up. The mean ERE dose did not correlate with stone size and location, patient age, multiple lithiasis, or sex. Nevertheless, the mean ERE dose did correlate with the type of Stone (in patients with calcium oxalate stones the average calculated ERE dose was lower 7,1891 mSV to the rest of stones 18,20 mSV, (P=0.018). Patients that were followed up with CT were higher ERE than others studies (US and KUB)(p=0,001).

Conclusions: The mean calculated ERE dose significantly decreased in patients with oxalate urolithiasis because of highest use of US and KUB.