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Introduction & Objectives: There has been a gradual rise of kidney stone disease (KSD) over the last two decades with lifetime prevalence of urolithiasis being 14% (1 in 7). This rise has also seen a substantial increase in minimally invasive interventions for it. We wanted to see the publication trends for 'uncommon interventions (open surgery, laparoscopic surgery, pyelolithotomy) for KSD' as reported on PubMed over the last 16 years.

Material & Methods: All published papers on 'Urolithiasis', 'kidney stones', 'renal stones', 'ureteric stones', 'open stone surgery', 'laparoscopic surgery', 'robotic surgery', and 'pyelolithotomy' were searched on PubMed over the last 16-years from 2000-2015. Data was included for open stone surgery, laparoscopic stone surgery and pyelolithotomy. There were no language restrictions and all non-English language papers with published English abstracts were also included in our review. While review articles were included, case reports, laboratory and animal studies, and those papers that did not have a published abstract were excluded from our analysis. Data was divided into two 8-year periods, period-1 (2000-2007) and period-2 (2008-2015).

Results: During the last 16-years, a total of 331 papers have been published on interventions for KSD, including open stone surgery (n= 87, 26%), laparoscopic stone surgery (n= 209, 63%) and pyelolithotomy (n=35, 11%). While there was a steady decline for open stone surgery and pyelolithotomy ($p<0,003$), there was a steep rise in laparoscopic stone surgery ($p<0,001$) (Figure 1).

When comparing the two time periods, there were 135 intervention papers in period-1, which had increased to 196 intervention papers in period-2 (Table 1). The increase was seen only for laparoscopic surgery (+116%, $p<0.002$) while it decreased for open surgery (-11%, $p=0.46$) and pyelolithotomy (-47%, $p=0.002$).

Conclusions: Published papers on intervention for KSD for laparoscopic surgery has risen over the last 8 years reflecting a rise in volume, training and possibly skills of laparoscopic and robotic surgery.