

P010 Bilateral simultaneous ureteroscopy for bilateral urolithiasis: The future? Evidence from a systematic review

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Introduction & Objectives: Bilateral urolithiasis is an uncommon presentation. Most operations carried out in this scenario are staged, however there is a growing body of evidence to suggest bilateral simultaneous ureteroscopy (BS-URS) is safe. We performed a systematic review to investigate and evaluate the evidence.

Materials & Methods: Systematic review following Cochrane guidelines. Bias assessment performed using the GRADE assessment tool. Studies investigating bilateral simultaneous ureteroscopy published after 2001 were included.

Results: In total 14 studies were identified for inclusion. These covered 1073 patients, with a male:female ratio of 660:413. BS-URS: mean operative time was 75.4 minutes, mean SFR was 91%, mean complication rates were 22% (Clavien I-II, n=240) and 1% (Clavien III, n=15), and hospital stay was 1.6 days. There was a serious risk of bias.

Post-operative Demographics

Study	Post-op imaging	Time between surgery and imaging	Overall SFR (%)	Clavien I-II Complications, n	Clavien >III Complications, n	Mean Hospital Stay, days±SD (range)
Dushinksi, 1997	NCCT	Timing NS	96.9	4	8	5.6
Maheshwari, 2000	Plain XR	Day 2	87.5	9	0	4
Holman, 2002	Plain XR	Day 1	96.6	30	0	4.3 (3-8)
	Renal USS/Plain					
Shah, 2005	XR	Day 1	NA	6	0	1.68±0.85
Desai, 2007	Plain XR	Day 2	95.5	7	1	6.6±1.94 (4-15)
Ugras, 2008	Plain XR	Timing NS	88.35	7	6	3.6
Bagrodia, 2009	NCCT	Day 1	87	2	2	3
Wang, 2011	NCCT	Day 1	NA	8	0	2.62±1.03
Kadlec, 2012	NA	NA	NA	23	2	5±2 (2-15)
Pillai, 2014	Plain XR	4 weeks	95.2	10	5	2.0±1.18 (1.25-10.5)
Prioetti, 2015	NCCT	Timing NS	NA	7	1	3.6±1.8
Liang, 2017	XR KUB	NA	88.9	21	6	18 (10-31)
Rivera, 2017	NCCT	Day 1	NA	68	17	3.2 (1-21)
Total			92.0	202 (26.9%)	48 (6.4%)	4.86

Conclusions: There is limited evidence to suggest that bilateral simultaneous ureteroscopy is safe in the modern era. Further randomized trials are needed to clarify whether simultaneous or staged procedures should be utilized.