

Outcomes of Live Renal Donors with a History of Nephrolithiasis

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Abstract : Aim: There is an ongoing gap in renal transplantation between organs available for donation and recipients on the waiting list. Live donors with pre-existing or a history of renal calculi were thought to be a relative contraindication due to safety concerns for donors. We aim to review current literature assessing outcomes of donors who were found to have a history of renal calculi. Methods: Ovid and Embase were searched between 1960 to 2021 using key terms and Medical Subject Headings (MeSH) - nephrolithiasis, renal stones, renal transplantation and renal graft. Articles included conference proceedings and journal articles and were not excluded based on patient numbers. Studies were excluded if the specific organ was not identified, duplicated reports found or if post-transplant outcomes were not recorded. Outcomes were donor's renal function or renal calculi recurrence postoperatively. Results: Upon reviewing 344 articles, 14 manuscripts met inclusion criteria. A total of 152 live donors were identified as having pre-existing or with a history of renal calculi at pre-operative workup. The mean stone size was 2.6 4mm (1 - 16) with a mean follow-up duration of 31.8 months (1 - 96). Seven studies had both outcomes. None showed renal complications or stone recurrence. The remaining studies contained 2 out of 84 patients having recurrent nephrolithiasis. Conclusion: Data suggests minimal morbidity involved for live renal donors with a history of nephrolithiasis. This should encourage surgeons to continue recruiting such donors for kidney transplantation.

Keywords : renal transplantation, renal graft, nephrolithiasis, renal calculi, live donor

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