

# Factors ID'd for outcome of percutaneous nephrolithotomy

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Single-tract percutaneous nephrolithotomy is effective for clearing renal stones, with stone size, location, and prior shockwave lithotripsy identified as independent predictors of stone clearance, according to a study published in the July issue of *Urology*.

(HealthDay) -- Single-tract percutaneous nephrolithotomy (sPCNL) is effective for clearing renal stones, with stone size, location, and prior shockwave lithotripsy (SWL) identified as independent predictors of stone clearance, according to a study published in the July issue of *Urology*.

Khaled Shahrour, M.D., from the University of Toledo Medical Center in Ohio, and colleagues conducted a retrospective review of 351 cases of sPCNL performed by one of two endourologists at a single institution between January 2000 and March 2010. Analyses included preoperative

patient and [stone](#) factors.

The researchers found that the stone-free rate (SFR) was 76 percent after either an initial procedure or a second-look nephroscopy. Lower SFR correlated with rising preoperative creatinine, [hypertension](#), increasing stone [diameter](#), complete staghorn stone, presence of stones in the upper pole, and absence of prior SWL, in univariate analysis. In multivariate analysis, stone size, presence of stones in the upper pole, and prior SWL for the active burden remained independent predictors of SFR.

"The purpose of the study is to evaluate the preoperative factors that affect outcome of sPCNL, to aid urologists and patients in making the most appropriate decisions concerning the type of stone treatment," the authors write. "Further development of a predictive [nomogram](#) of stone clearance and complications is currently being performed"

**More information:** [Abstract](#)

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