

Morbidity of Retrograde Flexible Ureteral Approach for Pyelo-Caliceal Stones - A Retrospective Review of 4500 Procedures

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Abstract

Introduction: The retrograde flexible ureteroscopic approach is an effective and relatively safe procedure. The aim of this study was to retrospectively evaluate the safety of retrograde flexible ureteroscopic approach in patients with pyelo-caliceal stones on a significant number of cases.

Material and method: We retrospectively evaluated 4500 procedures of flexible retrograde ureteroscopic approach for pyelocaliceal lithiasis, operated in two centers. The complications associated with this approach were retrospectively evaluated and data was stratified according to Clavien-Dindo classification.

Results: Intraoperative incidents occurred during 5.2% of the procedures. Overall complications occurred in 18.9% of the procedures. Around two thirds of them were septic complications, the use of ureteral access sheath proving to be a protective factor against them. Most of the complications were mild. In 4.8% of the cases in which ureteral access sheath was used, we encountered grade 2 and 3 ureteral wall lesions.

Conclusions: Most of the complications associated with retrograde flexible ureteroscopic approach are mild, regardless the type of flexible ureteroscope used. Reduced pressure in the pyelo-caliceal system is important to maintain the complications rate low, both septic and non-septic.

Key words: complications, flexible ureteroscopy, septic, ureteral access sheath