Is percutaneous chemolysis valid?

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Background and Purpose: Over the last decades, percutaneous chemolysis as a primary or adjuvant treatment for urinary stones has fallen in and out of favor. We present our Department’s experience upon chemolysis over the last ten years.

Materials and Methods: Retrospectively, all patients undergoing percutaneous chemolysis between 2001-2011 were identified and the patient's files were reviewed. Duration of the treatment, complications, dissolution results and recurrence rates were analyzed.

Results: A total of 29 patients with complete or partial infection staghorn stones (mean size: 3.9 cm) were treated in our Department, with adjunctive local chemolysis. We used Sudy-G solution for irrigation chemolysis. There were 17 women and 12 men, presented with a mean age of 62 years. Most of the patients had multiple co-morbidities and/or were unfit for a second look percutaneous nephrolithotripsy or other intervention. The duration of the treatment was 4-12 days (mean: 9.6 days). No serious complications were recorded. In 16 cases (55.1%) kidneys were completely stone free at the end of the chemolytic lavage, 8 stones (27.5%) showed partial dissolution, half of them presenting residual fragments less than 5 mm. The follow-up was from 1 to 11 years (mean: 63 months) and the recurrence rate was 13.7%.

Conclusions: Percutaneous chemolysis is an effective and safe adjuvant method for decreasing the burden of residual renal stones.

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