

A Novel Technique For Improving Vision During Flexible Uretero-Renoscropy

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Citation

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Abstract

The use of flexible uretero-renaloscopes for the management of intra renal calculi and the investigation of intra-renal lesions has increased significantly. There have been many advances in the technology of the flexible uretero-renaloscopes that has allowed improved vision. These include smaller diameter scopes, as well as digital technology in the scope and monitor. Additionally, the routine use of access sheaths and arthroscopy giving sets allows greater flow of irrigation fluid into the renal pelvis improving visibility. The giving set allows disbursement of blood and the 'snow storm' from renal calculus fragmentation.

The downside of these techniques are the increased cost. Furthermore, it is not always possible to gain access to the renal pelvis with an undilated ureter. Consequently, some cases require the pre-placement of a ureteric stent. While the ureteric stent allows passive dilation of the ureter and easier access to the renal pelvis, it also increases oedema and friability of tissues thus decreasing visibility.

The 'Spernat' technique is a simple technique pioneered at our institution to improve visibility without adding significantly to the cost or risk of the procedure. The Spernat

technique involves injecting contrast via the irrigation port of the uretero-renaloscope completely filling the collecting system. While the instillation of contrast is often performed to image the position of the calyces, completely filling the renal pelvis and calyces allowing improved vision by discharging the haematuria and 'snow storm' has not been previously described. Intra-renal contrast instillation improves the discharge of haematuria and 'snow storm' compared with saline as it is denser. Thus the haematuria or 'snow storm' is flushed out of the renal pelvis allowing improved visibility through fresh, clear irrigation fluid.

A Medline search including the terms flexible uretero-renaloscopy bleeding, flexible renaloscopy bleeding, and flexible renaloscopy technique failed to find any reference to this technique. Thus we believe this to be the first description of this novel technique. This technique is safe, cheap and easily reproducible throughout the procedure. It is especially valuable in teaching of novice endo-urologists who require perfect vision for adequate demonstration. Moreover, the Spernat technique adds to the endo-urologist's armamentarium of methods to improve visibility.

References

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