

MINERVA OPINION EDITORIAL

Quality of life of patients with stone disease: timing, planning, strategies, and prevention of a systemic pathology

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Zhong *et al.* recently translated and validated the Chinese version of Wisconsin Stone Quality of Life (WISQOL) questionnaire in patients with kidney stones.¹

Considering the prevalence of kidney stones and the economic and social impact it can have on society, it is of fundamental importance to analyze the quality of life (QoL) of patients affected by it trying to improve it.

The (WISQOL) was set up in 2012 to evaluate the health-related QoL of the kidney stone formers which considered of physical, mental, and social aspects.²

Stone disease has a great physical, mental and social impact.

Patients with renal colic experience sudden

pain that is often difficult to manage with painkillers which often renders them unable to work and cope with the normal vicissitudes of daily life. Sometimes it can present itself as a life-threatening emergency if associated with hyperpyrexia or acute renal failure in which urgent renal drainage is required.³

The first reflection to do is on what should be the right timing and when to treat ureteral calculi.

Recently Abou Heidar N *et al.* developed a nomogram to predict spontaneous stone passage (SSP) for ureteral stones <10 mm with an AUC of 0.804 (0.776-0.832).⁴

In patients with low probability of SSP urgent ureteroscopy or ESWL⁵ should be considered to improve QoL of patients with stone disease.

This could avoid awaiting weeks before receiving treatment or that stone disease becomes impacted or infected with higher risks for patients.

The improvement of the available technology also imposes reflections on how the new lasers can impact on the stone free rate of patients with stone disease and consequently on their quality of life. At the moment there is not a laser that has showed clear superiority to the others and clinical research should answer this question in the next years.⁶

The second important consideration must be made in patients with kidney stones bigger than 1.5 cm. These are patients who usually have an inveterate history of stone disease and in this case is mandatory a “maniacal study” of the best approach to offer to the patients the least invasive and most effective techniques. Patients affected from these conditions often spend several weeks with a nephrostomy tube or a ureteral stent with all the consequent problems on their quality of life. The management of nephrolithiasis has been complemented well by modern technological advancements like virtual reality and three-dimensional (3D) printing.⁷

These tools should be used as much as possible in daily practice to offer the best and less invasive approach to stone disease. Trifecta for percutaneous nephrolithotomy (PCNL) has recently been presented as a potential system to evaluate quality of percutaneous nephrolithotomies and to provide an instrument for an adequate standard data reporting. Further studies are needed to evaluate its correlation with mid- and long-term results and patient’s health related Quality of Life outcomes.⁸

Nomograms have also been built to predict probability of stone clearance after PCNL.⁹

These can represent an important tool for counseling of patients before surgery so to let them aware of the probability of success or of the potential need for further treatments so as triggers to choose alternative type of surgeries other than PCNLs such as laparoscopic or robotic pyelolithotomy.¹⁰

Nowadays PCNLs can be performed in different positions,¹¹ and with different and tailored approaches to the calices in combination with flexible ureteroscopy.¹²⁻¹⁴

Whatever position, technique or approach used this should be shared with the patient according not only with technical aspects but also with their expectations and quality of life’s impact.

Last but not least we should never forget that stone disease is a symptom and not just a disease that often underlies metabolic abnormalities responsible for stone formation.

To improve quality of life of patients with stone disease means before all understand the reason for stone formation and prevent further episodes.

A metabolic assessment should always be performed in high-risk stone former¹⁵ and a nutritionist¹⁶ and an endocrinologist should be involved for a multidisciplinary approach to what should be considered a systemic pathology.¹⁷

In conclusion to assess quality of life of patients with stone disease is mandatory to improve their quality of life choosing when to operate and when not, understanding what is the right time to do it and with the auxilium of which technologies, using all available tools to predict outcomes and to plan the right strategy and finally threatening stone disease as a systemic pathology within a stone center.

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Conflicts of interest

The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Authors' contributions

All authors read and approved the final version of the manuscript.

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