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Introduction & Objectives: Flexible ureteroscopy is an alternative for the treatment of kidney stones smaller than 2 cm. In centers with a high volume of surgeries and training programs in this technique, the useful life of reusable flexible ureteroscopes can be reduced, due to sterilization processes, resident training programs and number of urologists who perform this technique. In this context, disposable ureteroscopes come across as a more efficient alternative. The objective of this study is to analyze our experience with LithoVue™ in terms of its effectiveness and safety, compared with flexible reusable ureteroscopes.

Materials & Methods: A retrospective comparative study on patients who underwent flexible ureteroscopy for the treatment of renal lithiasis was carried out in our hospital in the last two years. The patients were divided in two groups: Group A (patients treated with LithoVue™) and Group B (patients treated with non-disposable flexible ureteroscope). Demographic variables and those associated with the effectiveness of the procedure were compared.

Results: 149 patients were included in the study, 72 of which were treated with LithoVue™ and 77 with flexible non-disposable ureteroscope (fiber-optic or digital). Both groups were homogeneous regarding sex, age, stone burden, number and location of stones. No differences were found as far as surgical time (70 min for Group A and 67.99 min for Group B), complications, hospital stay and final outcomes (stone-free rate, 91% for Group A and 88% for Group B; $p=0.51$).

Conclusions: In our experience, LithoVue™ is an alternative for the treatment of renal lithiasis as effective and safe as flexible reusable ureteroscopes. Moreover, the use of these devices makes it possible to have ample training programs without increasing costs or deteriorating the equipment.