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LETTER TO THE EDITOR

The art of shockwave lithotripsy is an endangered species and is worth saving: the perspective of the European Association of Urology (EAU) Young Academic Urology (YAU) Urolithiasis group

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Dear Editor,

We read with great interest the recent study by Herout et al., which shines a spotlight on the current status of shockwave lithotripsy (SWL) in Germany [1]. The findings confirm the rise of ureteroscopy (URS) and fall of SWL as the endourological treatment of choice for urolithiasis. The results mirror those from many other countries including the United Kingdom and United States [2]. To this end, it seems fair, therefore, that Herout et al. chose the word 'extinction' in their title [1]. However, perhaps this particular report on SWL's decline, is even more thought provoking given that it hails from the very country where the technology was first pioneered in the 1980s. For SWL, these results may, therefore, feel somewhat like an eviction notice placed on its front door.

While SWL has undergone modifications since its early 'bathtub' days in the 1980s, the constant advancements in URS are unremitting and show no signs of slowing down. The emergence of light amplification by stimulated emission of radiation (laser) for use in intra-corporeal lithotripsy as well as the development of fiberoptic and digital ureteroscopes have certainly played a key role in this [3]. Concepts such as Moses technology and more recently, Thulium fiber laser (TFL) have fueled this even further [4, 5]. Indeed, URS is the proverbial candy store all residents want to visit. Even in paediatric urolithiasis, SWL has been brought into question given the high efficacy of URS [6].

If "we are what we eat", then perhaps for residents SWL is poorly represented on the menus of academic conferences. While we are not necessarily calling for the dish of the day to be '*Live SWL sessions*', it should feature more than just as a side order.

The recent multicentre randomised controlled non-inferiority trial comparing Shockwave Lithotripsy Versus Ureteroscopic Treatment as Therapeutic Interventions for Stones of the Ureter (TISU) has re-awoken the urology community to the possible merits of SWL [7]. However, for its benefits to be maximised, patient selection is crucial. So too is the investment in time for training. Okada et al. improved their overall success rate with SWL by over 20% with additional training [8]. High frequency of cases by individual operators (> 150) has also been shown to deliver better outcomes [9]. During the COVID-19 pandemic, SWL also demonstrated its value in centres where operating theatres were not available to use [10]. It can also play a role in patients

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with multiple comorbidities where the anaesthetic risk may be high. We must, therefore, strive to not select treatment choices be dictated by the procedure we enjoy the most.

The role of SWL in urology is diminishing and the study by Herout et al. confirms this. However, we argue that it is not SWL itself that is facing extinction but rather, the art of delivering the service well. The story of SWL is not over yet and there is still time to change the narrative.

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Declarations

Conflict of interest None to be declared by any of the authors.

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