



Commentary: Outcomes and lessons learnt from practice of retrograde intrarenal surgery (RIRS) in a paediatric setting of various age groups: a global study across 8 centres

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Dear Editor,

We read the recently published article ‘Outcomes and lessons learnt from practice of retrograde intrarenal surgery (RIRS) in a paediatric setting of various age groups: a global study across 8 centres.’ with great interest [1].

In this study, the authors performed a retrospective analysis of paediatric patients gathered globally from 8 centres (314 patients) submitted to RIRS showing the safety of this procedure with reasonable efficacy and low morbidity. All complications were minor (Clavien–Dindo grade 1 and 2) and the stone free rate was 75.5%, with only a higher incidence of minor complications in children aged 5 years or less (27%). The authors concluded that RIRS in the modern era is safe, efficacious and acceptable minimally invasive procedure for paediatric urolithiasis and the utilization of RIRS will continue to increase in children thanks to technological advancements.

In this light, the present study seems to pose a further milestone in the process of expansion of RIRS in this field. However, some key points need to be clarified.

First of all, RIRS is usually a safe procedure but is not devoid of complications that range from infection, ureteral stenosis as well as other kidney-threatening complications:

the surgical experience plays a key role in the safety of RIRS with several procedures needed to achieve good outcomes but, difficult to gain in children by paediatric urologists or surgeons due to the relatively low number of cases [2–5].

Conversely, Lim et al. have not mentioned the expertise of the surgeons, as well as, who treated the cases; it seems to be that the surgeries were prevalent performed by adult urologists and not by paediatric urologists or surgeons. Furthermore, all the authors of the manuscript have a high and worldwide recognized experience in RIRS, but most of them are in the adult’s panorama.

Undeniably, as we previously described, surgeons who have achieved high expertise in the adult field of RIRS could confidently approach paediatric age population with efficacy and safety comparable with adults [6]. In this light, we do not totally agree with the conclusion of the manuscript of the expansion of RIRS in the paediatric patients linked only to technological advancements.

With this background, all the paediatric cases should be managed by adult endourologist and centralization of these patients might become mandatory. An alternative solution, that we adopted in our clinical practice is an Interhospital Department (ID) that involved the adult hospital and the paediatric hospital allows us to discuss with a multidisciplinary approach the difficult cases and bring the know-how and the instrument of the adult world to the paediatric scenario as robotic urological surgery and RIRS as well as percutaneous nephrolithotomy [7].

To summarize, Lim et al. represent brilliant and real-world clinical outcomes from a global cohort of paediatric patients who underwent RIRS but the conclusion of the expansion of RIRS should be linked to experts adult endourologists or interhospital units: also high-volume pediatric hospitals should not approach renal stone with RIRS.

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Author contributions SS: project concept and design, drafting of the manuscript. AC: critical revision of the manuscript. CC: critical revision of the manuscript. LM: project concept and design, critical revision of the manuscript, supervision.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Research involving human participants All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and national research Committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained for all individual participants included in the study from parents or legal guardians.

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