



## AB055. SOH22ABS063. Laparoscopic versus open appendicectomy performed by adult general surgeons in pre-teenage years children: a single-centre experience

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**Background:** The utilisation of laparoscopic appendicectomy (LA) in children remains contentious despite the well-recognised advantages of laparoscopic surgery. The purpose of this study was to compare intraoperative and postoperative outcomes in LA and open appendicectomy (OA) when performed by adult general surgeons outside of specialist paediatric practice in younger children.

**Methods:** A retrospective review of all patients under the age of 13 that underwent LA for suspected appendicitis over a two-year period was conducted. These were case-matched with an equivalent number of patients that underwent OA during the same time period. Intraoperative and postoperative outcomes were compared.

**Results:** Fifty-one patients underwent LA during the study period. Patient demographics were statistically equivalent with the OA cohort. A statistically significant longer median operating time (58 *vs.* 49 minutes) was noted in the LA group, but intraoperative outcomes were otherwise comparable. LA, when compared to OA, was associated with a significant improvement in postoperative length of stay (2 *vs.* 3 days,  $P < 0.001$ ), postoperative complication rate (0% *vs.* 6%,  $P = 0.01$ ), negative appendicectomy rate (3.9% *vs.* 17.6%,  $P < 0.001$ ) and 30-day readmission rate (0%

*vs.* 5.9%,  $P = 0.03$ ). No patients in the LA group required conversion to open surgery.

**Conclusions:** LA can be safely delivered by adult general surgeons to younger paediatric populations outside the setting of paediatric specialist practice, with statistically significant improvements in postoperative outcomes noted when compared with OA. These findings are of importance in the current healthcare context where adult general surgeons continue to perform the majority of paediatric appendicectomies.

**Keywords:** Acute appendicitis; laparoscopic appendicectomy (LA); open appendicectomy (OA); paediatric appendicectomy; paediatric surgery

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### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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