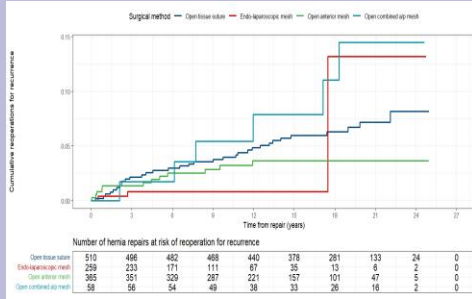


Surgical Method's impact on Reoperation for Recurrence in Adolescents: A nationwide population-based cohort study

Salim Tamimi^{1,2}, Hanna de la croix, Anders Muszta, Anna Löf Granström, Jenny Löfgren, Tomas Wester and Maria Melkemichel

¹Department of Women's and Children's Health, Karolinska Institutet, Stockholm, Sweden. ²Department of Pediatric surgery, Karolinska University Hospital, Stockholm, Sweden.



Conclusion

This nationwide, population-based register cohort study investigated the surgical methods impact on reoperation for recurrence in adolescents after groin hernia surgery. Endo-laparoscopic mesh repair was associated with a lower risk of reoperation for recurrence, indicating a preferred method to use with a potential advantage for adolescents.

Background

Despite established international guidelines for groin hernia repairs in adults, there is no consensus regarding the preferred surgical method of repair for adolescents.

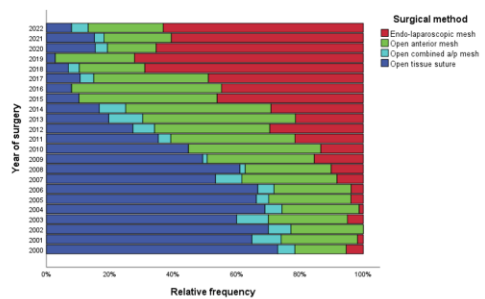
The study aimed to investigate surgical methods impact on reoperation for recurrence in adolescents after groin hernia surgery.

Method

This nationwide populations-based observational cohort study analyzed prospectively collected data from the Swedish Hernia Register. Both men and women aged 15-18 who underwent a groin hernia repair between 2000-2022 were included and had a follow-up until 2024.

Outcome

Primary outcome was reoperation for recurrence against different surgical method of repairs.



Results

Totally 1,192 groin hernia repairs were analyzed, distributed against 4 different surgical method of repairs, predominantly involving indirect hernias (90.5%) and males (84.6%).

Reoperation rates for recurrence were elevated at 6.5% for Open tissue suture repairs, 10.3% for Open combined anterior/posterior mesh repairs, 3.3% for Open anterior mesh repairs compared to 1.5% for Endo-laparoscopic mesh repairs.

Multivariable analysis revealed significant increased HR of 3.68 (95% CI 1.13-12.02) for Open tissue suture repair and 5.78 (95% CI 1.35-24.74) for Open anterior/posterior mesh repair compared to Endo-laparoscopic mesh repairs.



Salim Tamimi
Specialist in Surgery, MD, PhD student

salim.tamimi@ki.se