

EHS202500206 – Cyanocrylate glue mesh fixation in ventral hernia repairs; postoperative results and quality of life metrics

Emmanouil Bakalinis¹, Antonia Mathioulaki¹, Michael Emmanouilidis¹, Alexios Theodorou¹, Angeliki Kandili¹, Pericles John Tzardis¹, Pericles Joseph Chrysoheris¹

¹: Hygeia Hospital, Athens, Greece

Aim

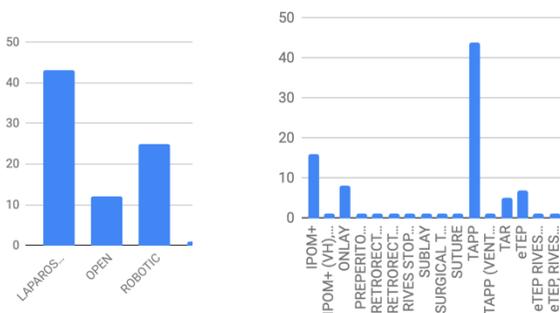
Mesh augmentation of the abdominal wall is pivotal for long term repair of ventral hernias. Quality of life post herniorrhaphy is mainly driven by pain and therefore the purpose of this study is to explore whether mesh fixation with cyanoacrylate glue confers benefits in terms of pain while maintaining low recurrence rates.

Material & Methods

This is a prospective, single center report of postoperative outcomes of ventral hernia repairs starting from January 2022 till December 2024. Approval from the ethics committee and written consent from all participants were acquired. Quality of life data were reported with Carolinas Comfort Scale, a well validated questionnaire, accompanied by postoperative follow-up visits at regular intervals. Post herniorrhaphy pain, recurrence and other complications were the primary investigated results.

Results

This is a cohort study of 80 patients (mean age 54,5 years, male: female ratio 1,16) with a mean follow-up period of 15,6 months. The incidence of chronic pain after mesh fixation with cyanoacrylate glue is as low as 1,3 % (n=3). Furthermore, two recurrences are noted in the follow-up period (3,7%). The mean Carolinas Comfort Scale Score was 0,76/115, with a maximum score of 9/115. Regarding postoperative complications, a case of subcutaneous hematoma is reported. Most cases were done in a minimally invasive fashion, mainly laparoscopic (43 cases, 53,75%) followed by robotics (25 cases).



Discussion

The two recurrences noted in ventral hernia repairs involved patients with follow-up periods of 29 and 23 months. In both cases TAPP with absorbable suture hernia defect closure was done and the abdominal wall was reinforced with fully resorbable mesh. We believe that those cases represent mesh failure and not a mesh fixation issue. Our study has a relatively small sample of patients with a short follow-up period. Furthermore ventral hernias include a heterogenous group of patients with different techniques, different mesh materials and mesh positions utilized in their management. From the small sample of our experience so far selective glue use has a clear benefit in reducing postoperative pain without increasing the rates of recurrence in ventral hernia repair.

Conclusions

Mesh migration, recurrence and intraabdominal viscera adhesion is a concern of glue fixation. Our study shows that cyanoacrylate glue fixation is both safe and effective, with low incidence of post herniorrhaphy pain, recurrence and other complications. More randomized controlled trials are required to further evaluate the use of glue in ventral hernia mesh repairs.

References

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