Utilization of a Shared Decision-Making Model in Selection of Mesh Material for Elective Hernia Repair

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Introduction

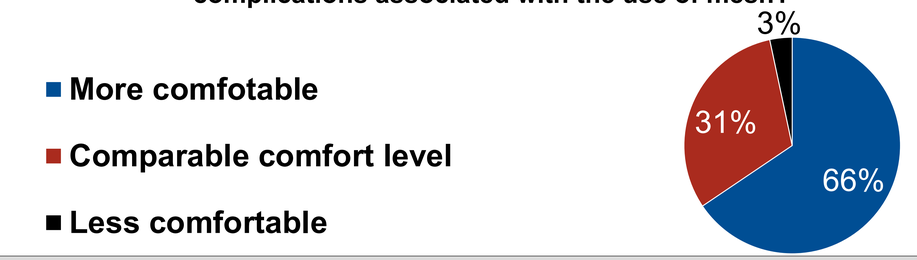
- Hernia repair using synthetic and biologic mesh materials can provide significant durability and longevity to the repair of defects in the abdominal wall and inguinal region[1]. However, negative publicity surrounding rates of recurrence and complications has lead to a rash of lawsuits, and patient hesitancy with repairs involving mesh[2].
- Surgical site complications, strength of mesh, and potential for development of chronic pain are some factors necessary to consider when selecting an appropriate material. Implantation of these devices remains standard of care, and the number of products available to physicians continues to expand[3].
- The choice of mesh in elective hernia repair is often left to the discretion of the surgeon, with little to no input received from the patient regarding this decision. However, the implementation of Shared Decision Making (SDM) in other surgeries has demonstrated favorable results in terms of patient satisfaction with care received, and satisfaction with surgical outcome[4].
- In this study, we investigate the effect of implementing SDM in the selection of mesh material for elective hernia repair, specifically focusing on its impact on patient decision making, as well as its influence on reassuring patients in the setting of negative publicity

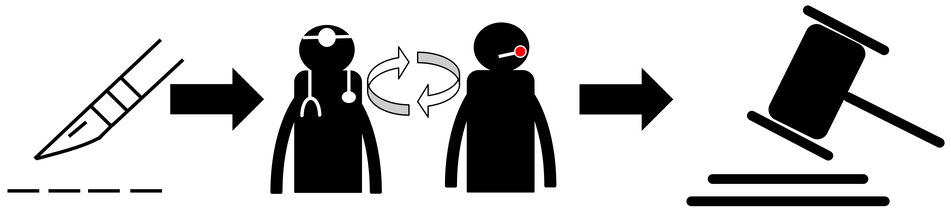
Methods

This study utilized a retrospective review from a single private-practice surgeon specializing in hernia repair in Indianapolis, Indiana.

- 325 patients, receiving care between 7/2017- 2/2020 for femoral, inguinal, and ventral hernias were delivered a depersonalized Qualtrics link, with instructions to complete a short online survey.
- All patient participated in SDM regarding selection of either a completely absorbable biologic mesh (Phasix), a completely synthetic nonabsorbable mesh (Bard), or a semi-absorbable biologic scaffold (Ovitex) prior to their surgery.
- Patients were asked if participating in SDM allowed for a better and more informed decision to have surgery, compared to having their surgeon decide for them
- The affect of SDM on patient comfort with the decision to have surgery, even in-light-of negative press, lawsuits and complications due to mesh repair was assessed

Chart 1: Did shared decision-making make you more comfortable with surgery, even with knowledge of the lawsuits and complications associated with the use of mesh?





n=90 Patients who received hernia mesh repair

89% felt SDM allowed better, more informed decision for surgery

66% more comfortable with surgery while knowing risk of complications

Results

- Surveys were submitted in March 2020 to the entirety of the private practice patient registry via email, as well as through a healthcare texting app
- 90 patients completed the required questions
- Survey also included questions pertaining to patient reasons for selecting certain mesh types over others; however, this data was found to be inconsistent and flawed, due to patient misinformation and error in identifying the correct mesh used for their repair.

- 97% reported SDM allowed them to feel as comfortable or more comfortable with surgery, despite surrounding lawsuits and risk of complication, than if their surgeon had exclusively made the choice of mesh.
- A majority (66%) reported SDM allowed them to be more comfortable with their decision to have surgery
- 89% of patients agreed that SDM allowed them to make a more informed, and overall better decision for having surgery to repair their hernia

Discussion

- These results from a small private surgical practice demonstrate that a large majority of patients find SDM to be beneficial in feeling more informed, and overall better in choosing to have surgery.
- The process of explaining options allows patient's greater insight and education into their disease; this may translate to greater satisfaction with the overall care and result[5].
- SDM may also allow patients to feel more comfortable with mesh repair in the setting of negative press coverage, litigious history, and an unappealing rate of complications/recurrence.
- Misinformation can be propagated quickly and broadly on social medial; SDM may serve as a valuable tool not only in educating patients about their disease, but also enforcing trust in the healthcare system.
- Limitations to this study include its small sample size, which is further complicated by a poor response rate (<30%).
- This potentiates selection bias and reduces the internal validity of this study.
- Lack of demographic information, along with the limited number of questions that were used in the survey also restricts its external validity and generalizability.
- Larger cohort studies that capture a larger proportion of candidate responses, introduces more expansive demographic information, expands inquiry on the effects of SDM, and control for biases, are needed to validate the results of this study.

References

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