Outcomes of Multiple Approaches to Biosynthetic Mesh Incisional Hernia Repair after Kidney Transplant

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BACKGROUND

- Post-operative incisional hernias are a common occurrence in the transplant population.
- Hernia following kidney transplantation further complicates repair due to the location of the operative incision

RESEARCH OBJECTIVES

- The goal of this study was to compare recurrence rates between various operative approaches after biosynthetic mesh incisional hernia repair in patients after kidney transplant

METHODS

- A prospectively maintained database was reviewed for patients undergoing elective incisional hernia repair following kidney transplantation from January 2017 to June 2022.
- All patients were on a steroid-based immunosuppressive regimen at the time of hernia repair.
- Hernia repairs were approached either open or robotic-assisted via an intraperitoneal onlay mesh (IPOM) technique or a robotic transabdominal preperitoneal (RTAPP) mesh technique.
- Biosynthetic mesh was used in all cases.
- Patients who were actively smoking and hernia surgery in the setting of perforations were excluded.

RESULTS

- A total of 96 patients were included; 21 underwent an open approach, 18 had an IPOM, and 57 had an RTAPP
- There were no significant differences in age, sex, BMI, co-morbidities (diabetes, smoking history), or hernia defect size (p>0.05)

Biosynthetic mesh incisional hernia repair following kidney transplantation has the lowest intermediate term recurrence rate with an RTAPP technique.

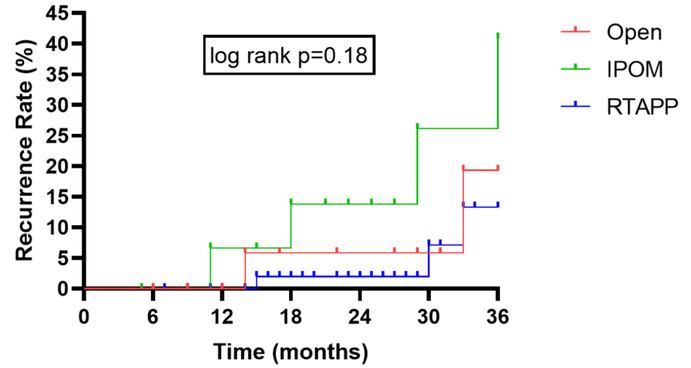
Intraperitoneal onlay mesh is the least durable repair when compared to both the open approach and RTAPP.

Longer follow-up is necessary to determine durability of repair by operative technique in the kidney transplant population.

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RESULTS



	Open N=21	IPOM N=18	RTAPP N=57	P Value
VHWG				
≤2	18	17	55	0.22
>2	3	1	2	
Time from transplant to hernia repair, m (mean)	4±2.1	5±2.3	6±2.2	0.27
Hernia size (cm2)	30±9	20±11	25±13	0.08
Recurrent Hernia, % (n)	24% (5)	28% (5)	19% (11)	0.11
Operative time (min)	156±39	109±29	131±35	<0.001
Postoperative morbidity, % (n)	29% (6)	11% (2)	14% (8)	0.24
Surgical Site Occurrence, % (n)	24% (5)	11% (2)	9% (5)	
SSOs:				
SSI	1	0	0	
Seroma	2	1	5	0.37
Hematoma	1	1	0	
Wound dehiscence	1	0	0	
Readmission rate, % (n)	5% (1)	0%	2% (1)	0.56
Follow-up, median (range)	29 (6-44)	24 (6-48)	24 (7-47)	0.81