

Peritoneal Dialysis Catheter Placement and Simultaneous Hernia Repair: a single institution assessment of outcomes

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PURPOSE

This study aims to assess the outcomes of simultaneous peritoneal dialysis (PD) catheter placement and hernia repair.

BACKGROUND

2023 SAGES guidelines recommends that individuals undergoing PD catheter placement be assessed for hernias and undergo a staged hernia repair with subsequent PD catheter placement. This is an update from the 2013 guidelines which recommended staged or simultaneous PD catheter placement and hernia repair. Recommendations for PD catheter placement in the setting of hernias in both SAGES guidelines were stated to have low quality evidence and were weak/conditional recommendations.

STUDY DESIGN

A retrospective chart review was conducted for patients who underwent PD catheter placement and simultaneous hernia repair. Type of hernia, type of repair, and need for repeat surgery were reviewed and compared to historical data of outcomes for PD catheter placement without hernia repair.

PRIMARY AND SECONDARY OUTCOMES

Primary outcomes included need for repeat surgery and PD survival rate at 90 days and 12 months. Secondary outcomes included identification of risk factors for PD failure in patients undergoing simultaneous PD placement and hernia repair and the impact of mesh on outcomes.

METHODS

The Slicer Dicer tool in Epic was used to identify all patients who underwent procedures by a single surgeon. The procedure criteria included PD catheter placement and hernia repair during the same procedure. A total of 147 patients underwent procedures meeting this criteria between July 2018 and November 2024. A systematic chart review was conducted for each patient. Type of hernia, method of repair, and following surgical history regarding hernia and/or PD catheters was recorded. BMI, smoking history, medical history, and previous abdominal surgical history was also recorded for each patient.

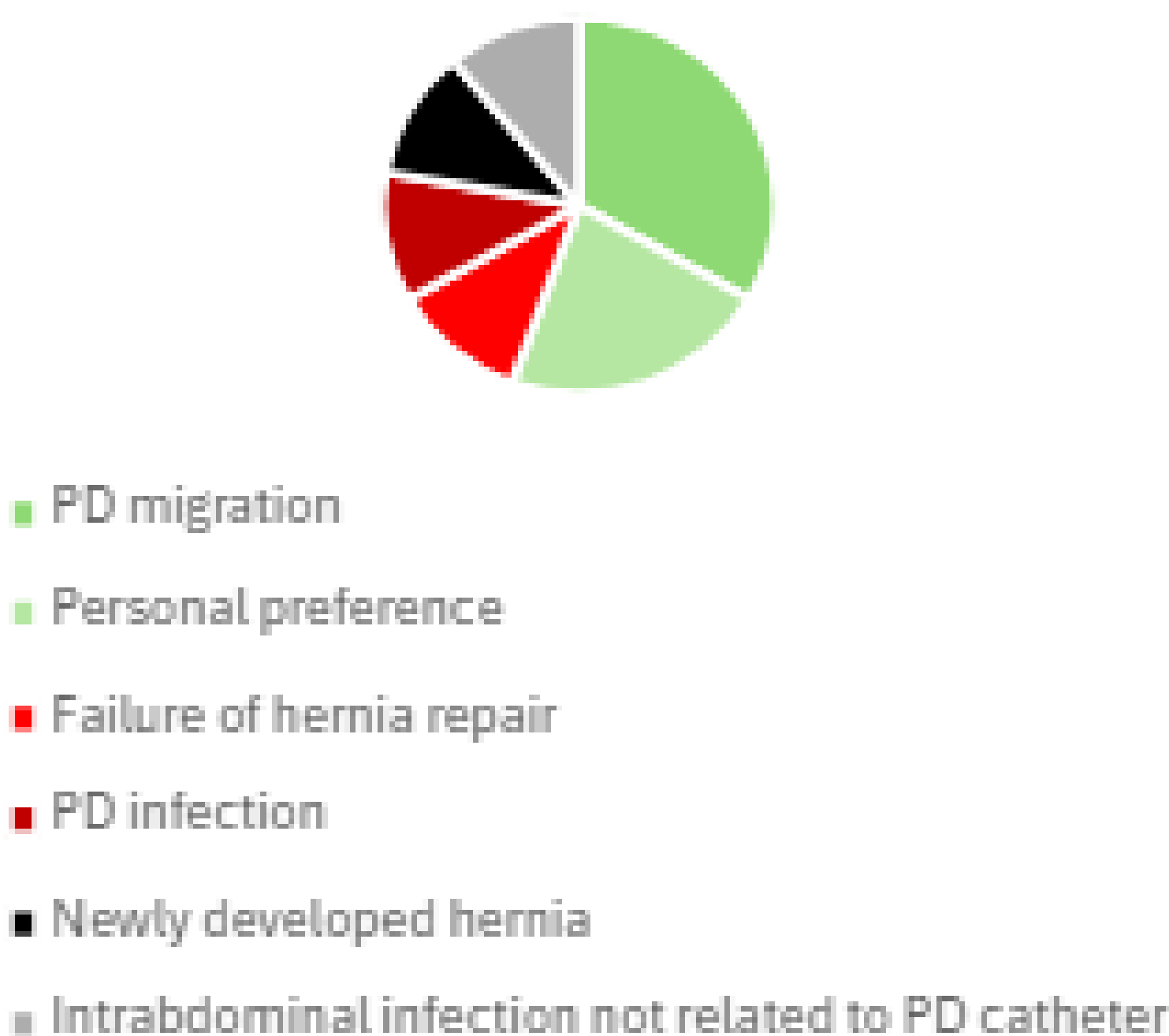
PRIMARY RESULTS

A total of 9 patients required a PD catheter or hernia related procedure within 90 days of placement. Of these 9, three required revisions due to migration, and two patients requested removal due to personal preference. One patient required a subsequent hernia repair at a different site. One patient required repeat hernia repair which had initially been closed primarily with figure 8 sutures. The repeat hernia repair was conducted with Phasix. One patient underwent PD catheter removal due to PD associated infection, and the final patient underwent prophylactic PD catheter removal due to a clostridium difficile infection. Current data suggests that PD catheter survival at one year is 80-93%. Patients undergoing simultaneous PD catheter placement and hernia repair at our institution had a PD catheter survival rate of 84% at one year.

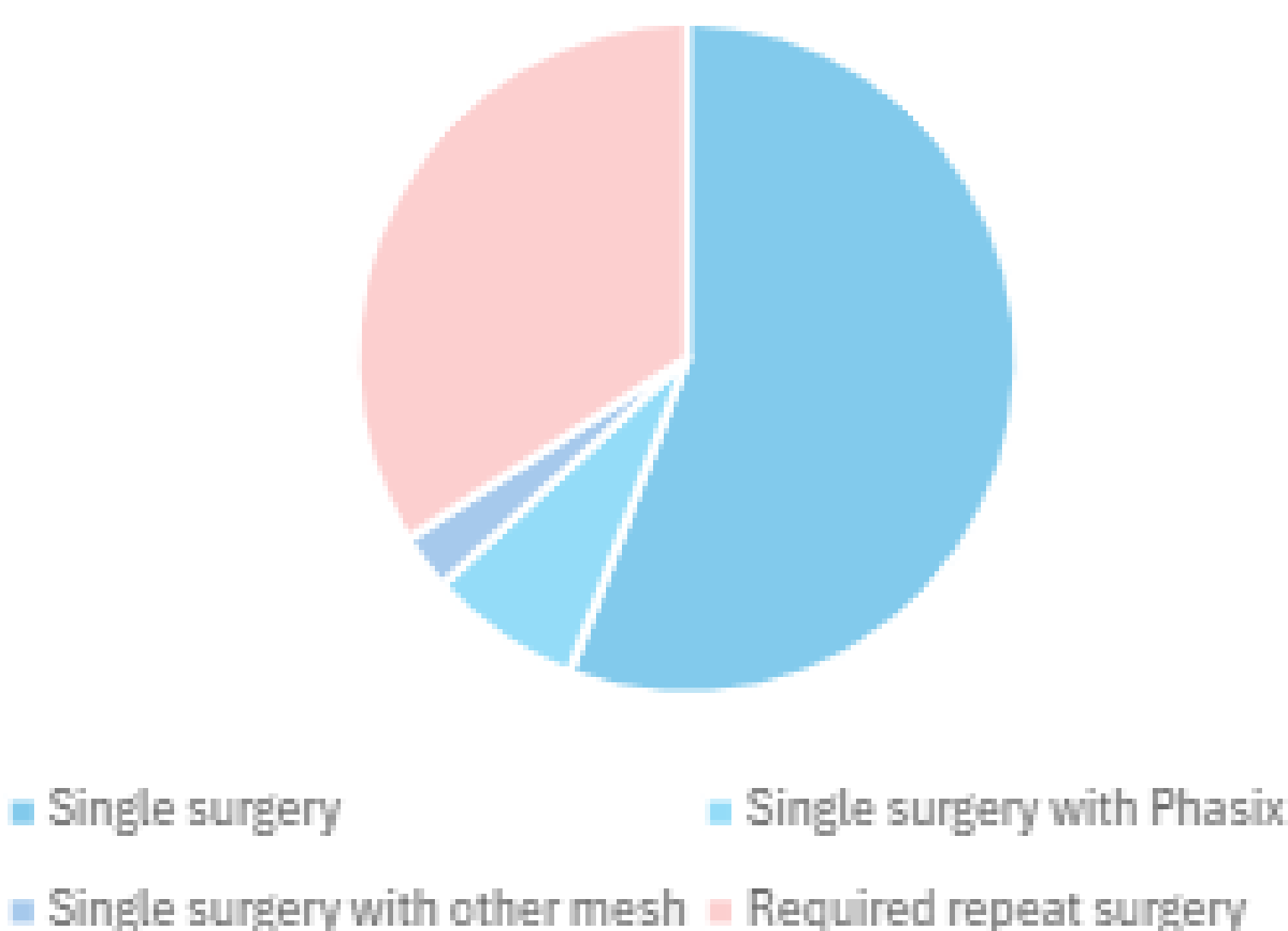
SECONDARY RESULTS

Phasix mesh placement during index surgery was not associated with any complications within 90 days. Patients who specifically underwent PD catheter placement and simultaneous hernia repair with Phasix mesh had a one-year PD catheter survival of 94%.

Causes of repeat surgery within 90 days



Simultaneous PD placement and hernia repair outcomes



DISCUSSION

These findings lead us to conclude that simultaneous PD catheter placement and hernia repair with or without mesh does not lead to an increased risk of acute infection necessitating PD catheter removal. Although current guidelines recommend a staged procedure, we propose that simultaneous PD catheter placement and hernia repair can be done concurrently as it is a safe procedure.

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DISCLOSURES

None