

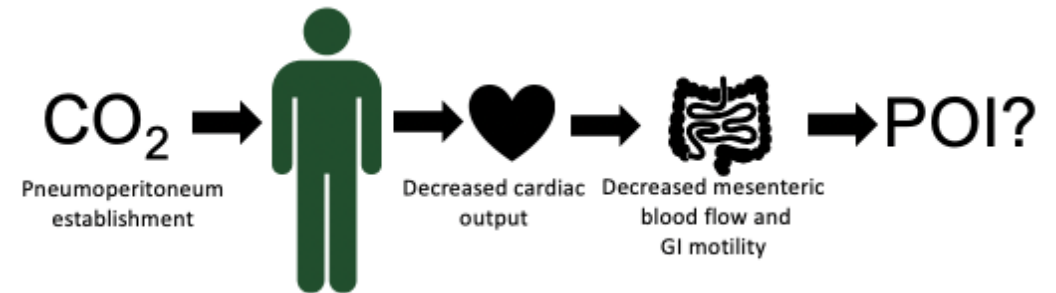
# (MP04-07) The Impact of Low Pressure Pneumoperitoneum in Robotic Assisted Radical Prostatectomy: A Prospective, Randomized, Double Blinded Trial

Matthew Rohloff, Gregg Peifer, Jaschar Shakuri-Rad,  
Thomas J. Maatman

# Objective

## Introduction

- Robotic surgery has revolutionized postoperative outcomes in RARP
- Pneumoperitoneum has physiologic sequelae
- 7% decrease in postoperative ileus rate with lower pressures



## Methods

- Patients were randomly assigned to pneumoperitoneum pressure of 12 mmHg or 8 mmHg during RARP



- The primary outcome was development of postoperative ileus and secondary outcomes were length of operation, estimated blood loss and positive surgical margin status.

# Results

## Results

- The groups were adequately matched
- There was a decrease in POI with lower pneumoperitoneum pressures
  - 2% at 8 mmHg and 4.8% at 12 mmHg.
- There were no clinically significant differences in estimated blood loss, total length of operative time and positive margin status.

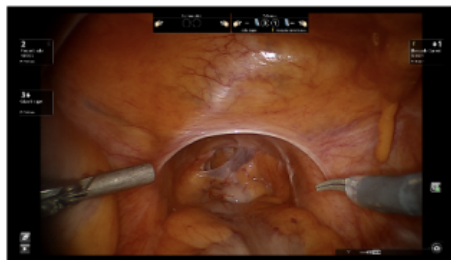
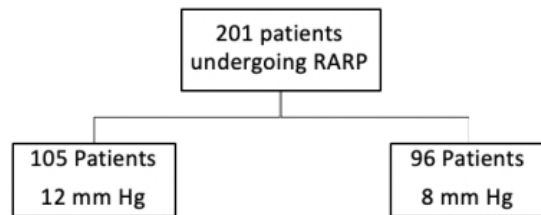


Figure 3. Visualization at pneumoperitoneum of 12mmHg

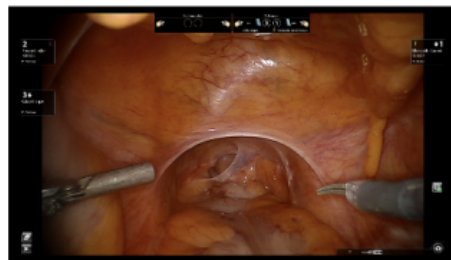


Figure 4. Visualization at pneumoperitoneum of 8mmHg

	12 mmHg (n=105)	8 mmHg (n=96)	p-value
Hospital Length of Stay (days) (IQR)	1.6 (1-15)	1.8 (1-14)	0.66
Total Length of Operation (minutes) (IQR)	121 (60-208)	128 (78-203)	<0.05
Total Length of Pneumoperitoneum (minutes) (IQR)	<b>88 (41-164)</b>	<b>94 (49-180)</b>	0.08
Length of Posterior Dissection (minutes) (IQR)	12 (4-25)	13 (6-40)	0.14
Estimated Blood Loss (mL) (IQR)	<b>96 (0-970)</b>	<b>115 (5-840)</b>	0.32
Prostate Weight (grams) (IQR)	55 (28-260)	62 (26-206)	<0.05
Intraoperative Maintenance Intravenous Fluids (mL) (IQR)	1184 (500-3000)	1120 (250-2700)	0.31
Intraoperative Narcotics (morphine equivalents) (IQR)	5 (0-12)	5.4 (0-20)	0.33
Positive Surgical Margin (%)	<b>18.5%</b>	<b>18.5%</b>	N/A