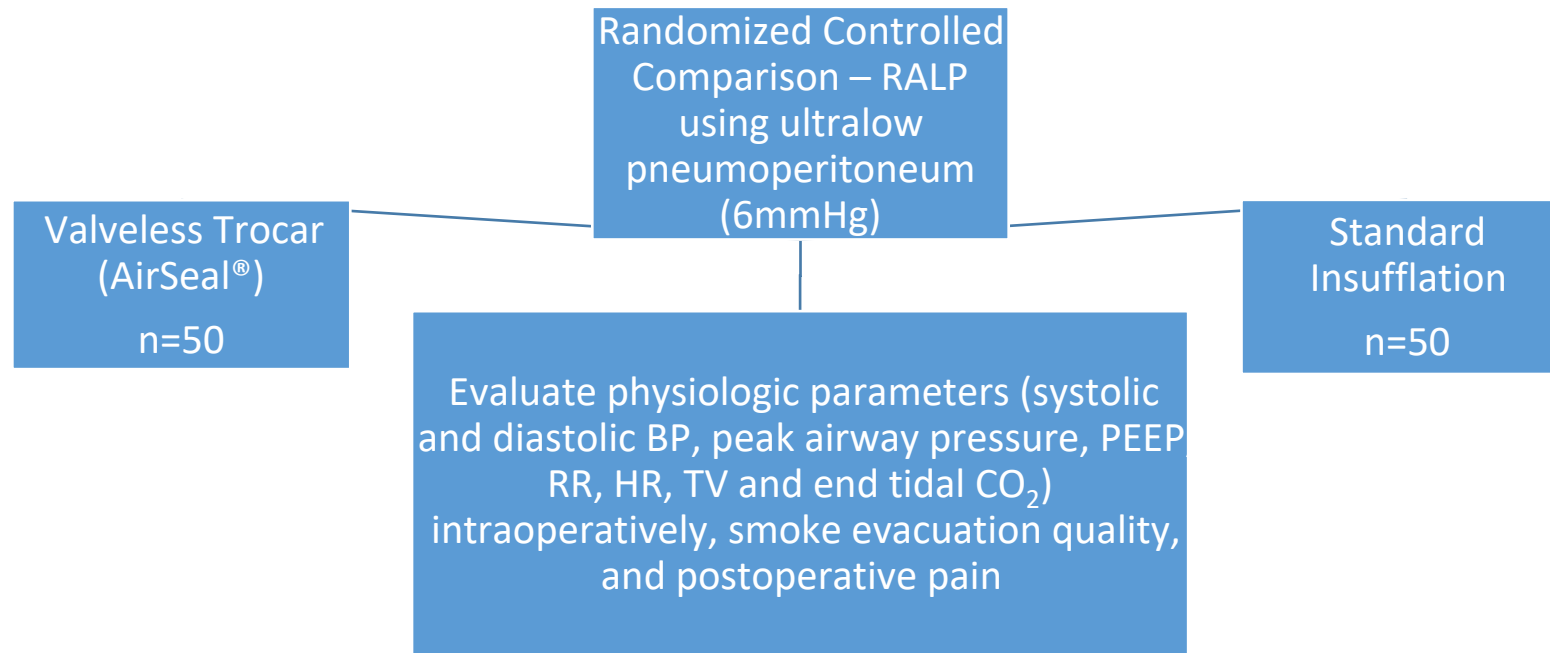


# Randomized, Controlled Comparison of Valveless Trocar (AirSeal®) versus Standard Insufflator with Ultralow Pneumoperitoneum during Robotic Prostatectomy

Ronney Abaza, M.D., F.A.C.S.  
Oscar Martinez, MD  
Christopher Murphy, DO

# Valveless Trocar versus Standard Insufflation using Ultralow Pneumoperitoneum during RALP



	Overall	AirSeal®	CIS	p-value
Mean Age years (range)	61.5 (47-75)	61 (47-72)	62 (48-75)	0.44
Mean BMI kg/m <sup>2</sup> (range)	28.7 (21.5-40.7)	29.1 (22-39)	28.3 (21.5-40.7)	0.30
Mean Preoperative Hb g/dl (range)	14.8 (12.4-17.3)	15.1 (13-17.3)	14.5 (12.4-17.1)	0.083
Mean Preoperative Creatinine mg/dl (range)	0.92 (0.59-1.96)	0.89 (0.59-1.42)	0.96 (0.59-1.96)	0.06

No significant differences in preoperative characteristics between arms

# Valveless Trocar versus Standard Insufflation using Ultralow Pneumoperitoneum during RALP

## Scope Cleanings and Smoke Evacuation.

Comparative Post-operative pain score			
	Airseal	Endopath	p value
Immediate	1.6	0.8	0.11
30min	3.1	3.2	0.853
60min	3.0	3.2	0.820
Immediately prior to discharge to floor	2.8	3.3	0.353

		AirSeal®	Endopath	p-value
Mean scope cleanings (range)		2.3 (1.4)	2.9 (1.7)	0.07
Smoke evacuation quality	Below average	4 (8.2%)	16 (33.3%)	<0.001
	Average	25 (51.0%)	18 (37.5%)	
	Above average	20 (40.8%)	14 (29.2%)	

- Valveless trocar group had a lower maximum peritoneal pressure (7.9 mmHg vs 9.9 mmHg,  $p < 0.001$ ),
- All cases able to be performed at ultralow pressure in both arms
- No significant differences in physiologic parameters between groups
- No significant differences in pain – this may be due to all procedures being performed at ultralow pressure
- Better smoke evacuation and fewer scope cleanings with AirSeal®