

Cannabis smoking and abdominal wall reconstruction outcomes: A propensity score-matched analysis

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Disclosures

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Background

- 35.5 million individuals aged 26 or older reportedly using cannabis
- 23 states and the District of Columbia that have legalized marijuana for recreational use as of 2023



Background

2023- American Society for Regional Anesthesia (ASRA) released guidelines

- Known perioperative effects: cardiac, respiratory, PONV, pain
- Recommend 2-72 hours of abstinence

12,422 major non-cardiac surgeries in NIS-> composite mortality/morbidity

- aOR 1.19 (95% CI, 1.04-1.37) $p = .01$
- Cannabis use disorder (7.73%) vs unexposed group (6.57%)

Question

Is there is an association between cannabis use and postoperative wound morbidity or reoperations in patients undergoing clean AWR with RM mesh?



Methods

EMR used to identify cannabis smokers -> 1:3 PSM to non-users in QC

Inclusion:

- Open ventral hernia repair
- Transversus abdominis release
- Retromuscular synthetic mesh placement
- CDC class I wounds at CCF
- January 2014 -May 2022



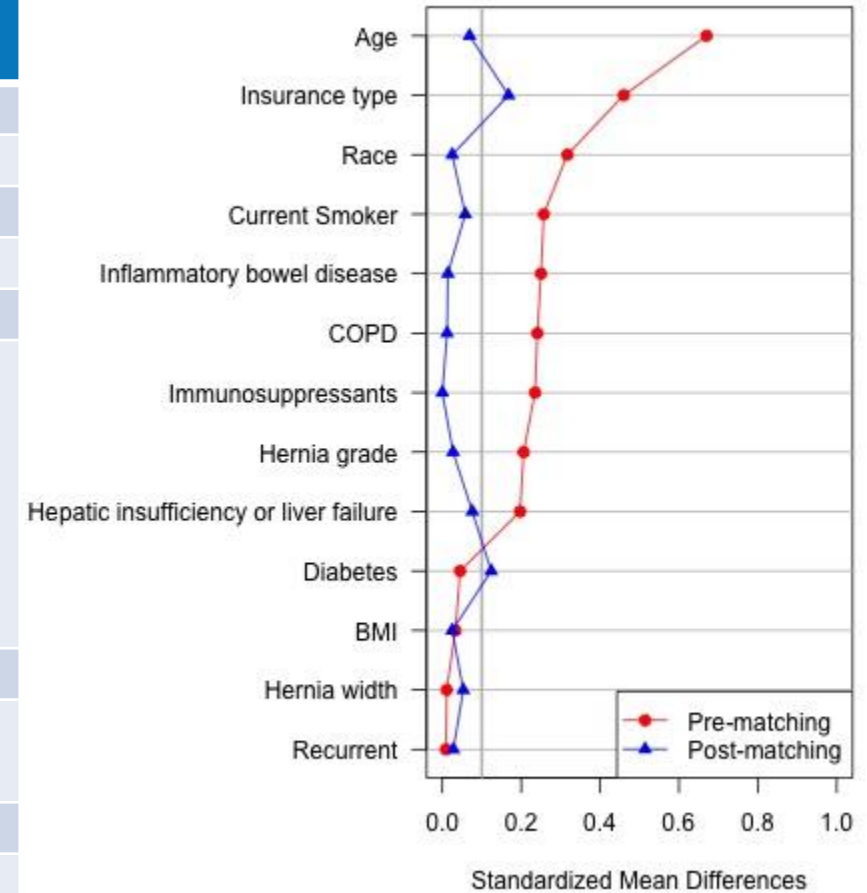
Outcomes

- SSI
- SSO
- SSOPI
- Reoperations
- HerQLes
- PROMIS
- Hernia Recurrence



Results

	Cannabis smoker n=72	Non-smoker n=216	p-value
Male	54% (39)	53% (114)	0.84
White race	83% (60)	82% (178)	0.86
Age, years, median (IQR)	54 (44,60)	54 (45, 62)	0.48
BMI, kg/m ² , median (IQR)	33 (28, 36)	33 (29,36)	0.99
Current tobacco use	12% (9)	11% (23)	0.67
Distressed Community Index			0.25
Distressed	29% (21)	19% (39)	
At Risk	14% (10)	21% (43)	
Mid-tier	24% (17)	22% (46)	
Comfortable	19% (14)	18% (38)	
Prosperous	14% (10)	21% (43)	
Inflammatory bowel disease	12% (9)	13% (28)	0.92
Hepatic insufficiency or liver failure	4.2% (3)	2.8% (6)	0.56
Hypertension	57% (41)	60% (129)	0.68
Diabetes	25% (18)	31% (66)	0.37
COPD	17% (12)	16% (35)	0.93
Anti-platelet medications	2.8% (2)	4.6% (10)	0.5
Anti-coagulant medications	5.6% (4)	5.1% (11)	0.88
Immunosuppressants	17% (12)	17% (36)	1

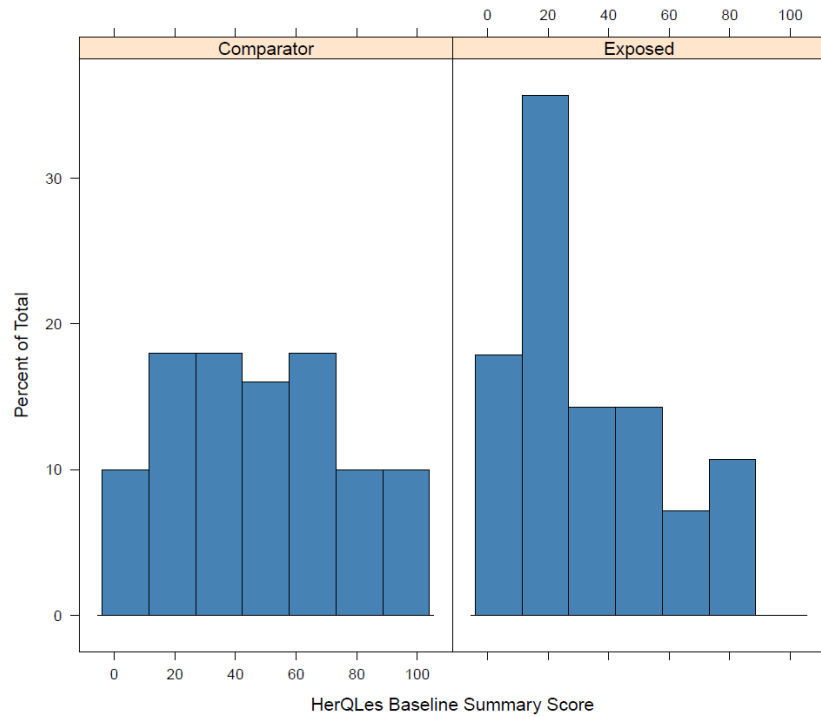


30-day Outcomes

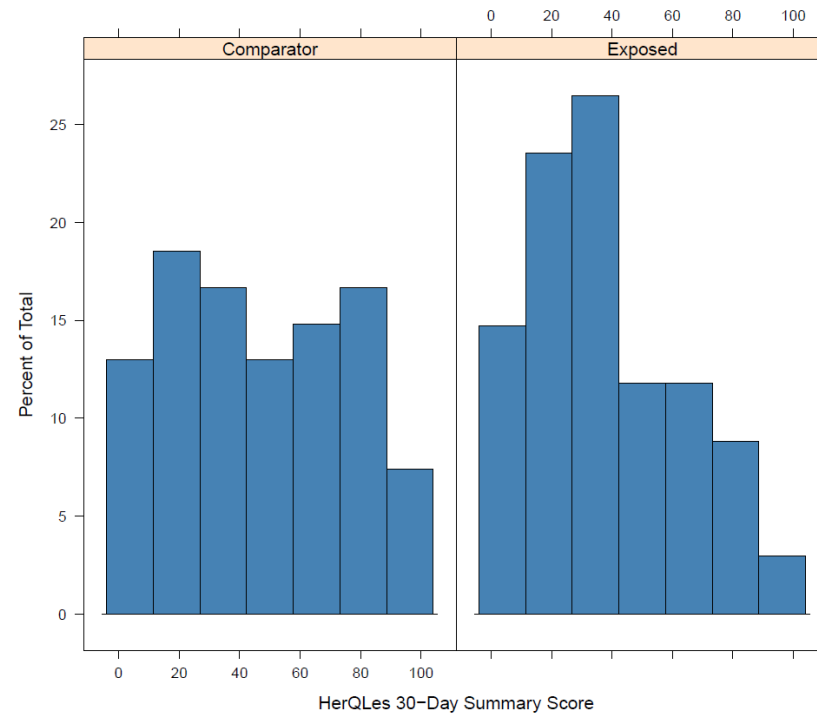
	Cannabis smoker n=72	Non-smoker n=216	p-value
Length of stay, days, median (IQR)	5 (4,6)	6 (4,7)	0.21
Readmission	12.5% (9)	9.3% (20)	0.43
Reoperation	8.3% (6)	2.8% (6)	0.04
Bowel obstruction	0	1	
Major Wound Complication	5	2	
Postoperative Bleeding	0	3	
Unrelated Intra-Abdominal Pathology	1	0	
Mesh excision	0	0	
Any postoperative complications	46% (33)	43% (92)	0.63
SSI	11.1% (8)	9.3% (20)	0.65
SSO	18% (13)	17% (37)	0.73
SSOPI	12% (9)	12% (26)	0.92
Pulmonary embolism	1.4% (1)	1.9% (4)	0.8
Deep vein thrombosis	2.8% (2)	0.46% (1)	0.094
Myocardial infarction	0	0.93% (2)	0.41
Pneumonia	1.4% (1)	2.3% (5)	0.63
Respiratory failure	1.4% (1)	2.8% (6)	0.51



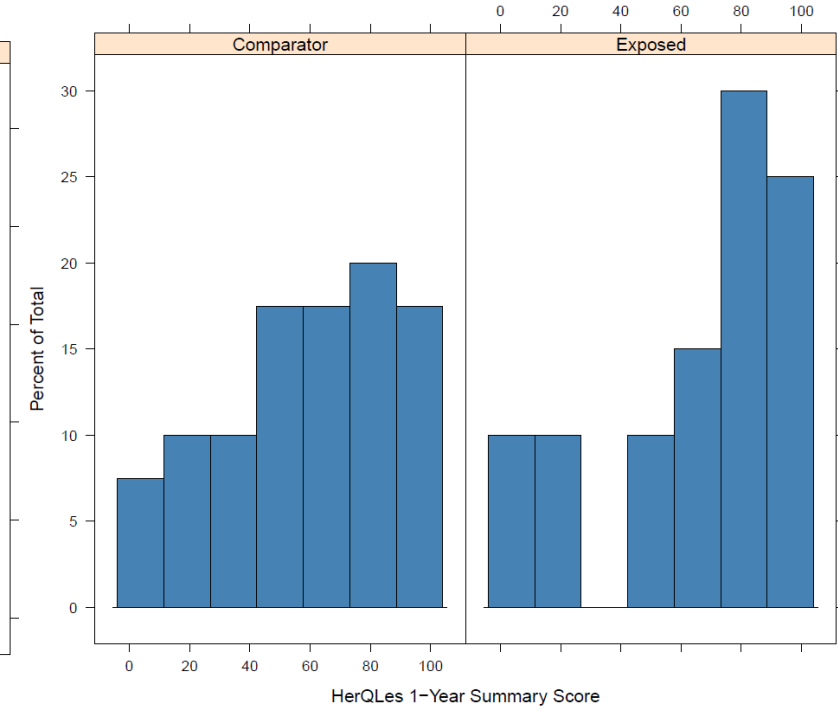
HerQLes



Cannabis: 22 (11,41)
Non-smoker: 35 (14, 55)
P=0.06

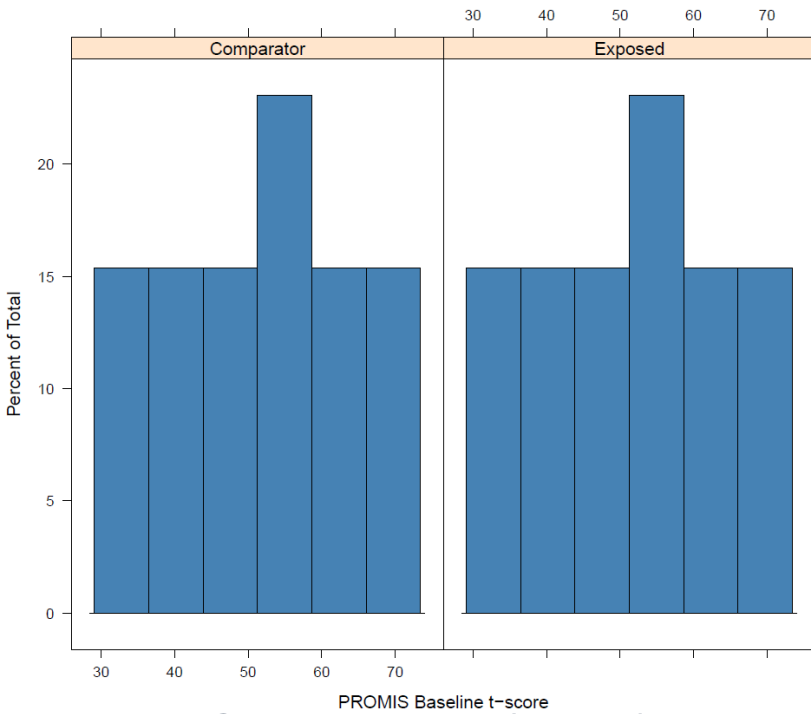


Cannabis: 30 (12,50)
Non-smoker: 38 (20, 67)
P=0.032

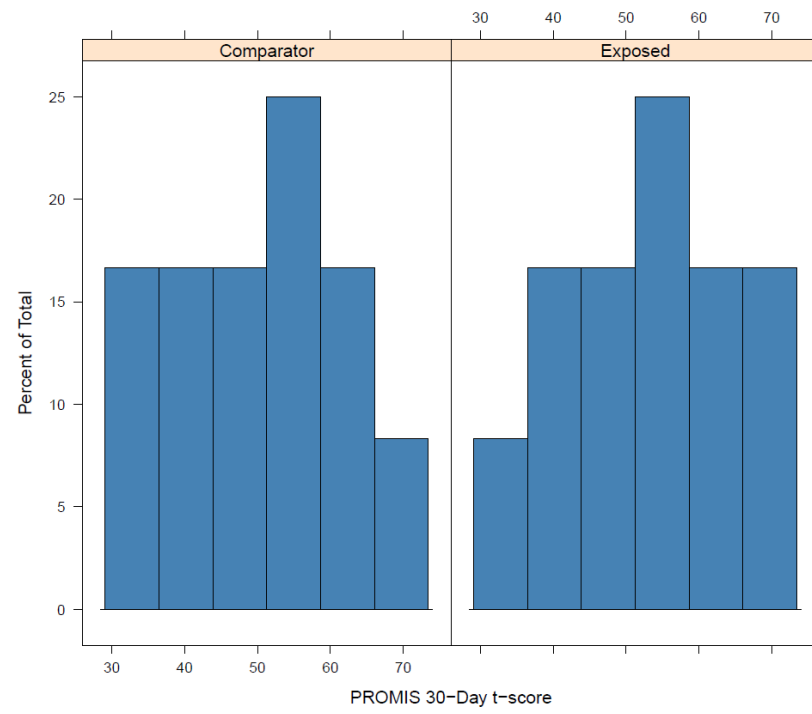


Cannabis: 72 (53, 90)
Non-smoker: 78 (57,92)
P=0.39

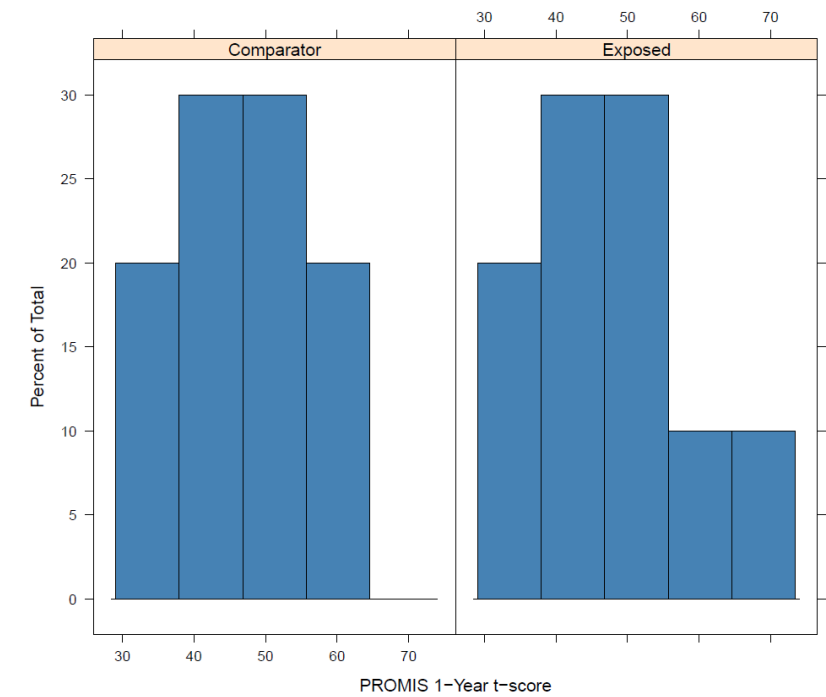
PROMIS



PROMIS Baseline t-score
Cannabis: 51 (44,54)
Non-smoker: 46 (40,54)
P=0.33



PROMIS 30-Day t-score
Cannabis: 52 (46,58)
Non-smoker: 49 (44,54)
P=0.01



PROMIS 1-Year t-score
Cannabis: 38 (31,46)
Non-smoker: 31 (31,46)
P=0.65

Conclusion

- No difference in incidence of wound complications
- Reoperation for wound complications more common in cannabis smokers
- Worse QoL and pain scores short-term in cannabis smokers, which seems to normalize over time



Thank you!





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Every life deserves world class care.