



Timing of Smoking Cessation Before Open AAA Repair and Lower Extremity Bypass

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Objective



- Investigate the role of smoking and smoking cessation on postoperative outcomes after LEB and open AAA

Methods

- Three groups
 - Long term smoking cessation (LTSC)
 - Quit smoking > 8 weeks
 - Short-term smoking cessation (STSC)
 - Quit < 8 weeks
 - Current smokers (CS)

LEB Demographics

Characteristics	LTSC	STSC	CS	P-Value
HTN	91.3%	85.1%	84.6%	<.001
CAD	35.0%	25.7%	28.2%	<.001
CHF	20.2%	11.8%	12.0%	<.001
COPD	25.7%	29.6%	33.4%	<.001
CABG/PCI	43.6%	28.5%	27.6%	<.001
Diabetes	53.6%	43.2%	40.7%	<.001
Dialysis/Transplant	6.8%	1.5%	3.1%	<.001
Cr>1.5 mg/dl	12.7%	7.5%	7.0%	<.001

LEB outcomes

Complication	LTSC	STSC	CS	P-Value
MI	3.4%	1.5%	1.4%	<.001
Dysrhythmia	4.3%	2.8%	2.8%	<.001
CHF	1.8%	.5%	1.2%	<.001
Stroke	.5%	.5%	.5%	.79
Pulmonary complication	1.9%	1.3%	1.6%	.24
Wound complication	2.5%	1.8%	2.9%	.18
Return to OR	9.6%	8%	9.9%	.4
30-day mortality	1.7%	.8%	.9%	<.001

LEB Outcomes

Complication	LTSC			STSC		
	OR	95% CI	P-value	OR	95% CI	P-value
Cardiac	1.22	.9-1.67	.19	1.08	.63-1.85	.77
Stroke	1.03	.4-2.69	.94	1.14	.24-5.41	.86
Pulmonary	.83	.47-1.47	.53	.93	.35-2.42	.87
Wound	.83	.56-1.24	.36	.62	.28-1.37	.36
Reoperation	.98	.78-1.24	.89	.89	.59-1.34	.59
30-day mortality	1.28	.65-2.53	.47	.99	.29-3.45	.99

AAA Demographics

Characteristic	LTSC	STSC	CS	P-value
HTN	86.7%	79.2%	82.7%	<.001
CAD	27.1%	19.4%	26.3%	.16
CHF	8.9%	6.5%	6.8%	.014
COPD	29.5%	37.1%	43.1%	<.001
CABG/PCI	35.5%	27.4%	26.3%	<.001
Diabetes	19.2%	13.7%	15.4%	.001
Dialysis/Transplant	.5%	2.4%	.5%	.024
Cr >1.5 mg/dl	11.8%	8.8%	8.6%	.001

AAA outcomes

Complication	Overall	LTSC	STSC	CS	P-value
MI	4.9%	5.5%	4.0%	4.5%	.25
Stroke	.9%	.8%	0%	1.0%	.41
Dysrhythmia	11.9%	11.7%	11.2%	12.1%	.88
CHF	4.0%	4.1%	.8%	4.1%	.18
Resp. Complication	11.1%	9.5%	8.0%	12.5%	.002

AAA Outcomes - Propensity Matched

Complication	LTSC			STSC		
	OR	95% CI	P-value	OR	95% CI	P-value
Cardiac	.92	.79-1.08	.32	1.06	.64-1.76	.81
Pulmonary	.65	.53-.79	<.001	.52	.25-1.08	.08
Wound	.81	.57-1.16	.25	1.04	.37-2.92	.94
Leg Ischemia	1.03	.72-1.48	.85	1.63	.64-4.13	.3
Bowel Ischemia	.8	.59-1.1	.17	.41	.1-1.7	.22
Return to OR	1.07	.86-1.34	.53	.9	.43-1.9	.79
30-day mortality	.73	.53-1.02	.06	1.09	.39-3.08	.87

Conclusions

- STSC did not improve perioperative outcomes after elective open AAA or LEB.
- LTSC was associated with fewer pulmonary complications after open AAA repair
- More time without smoking should be attempted before open AAA repair if time permits