Age and BMI Are Poor Predictors of In-Hospital and Operating Room Costs in Older Hernia Patients following Transverses Abdominis Release

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Introduction

-Transversus Abdominis Release (TAR) is an effective procedure for the repair of complex ventral hernias
-TARs have high healthcare utilization costs especially in patients with existing comorbidities
-It is unknown if increasing chronological age and/or BMI affects healthcare costs in TAR patients

Objectives

-Evaluate the relationship between age, BMI, and healthcare costs of patients undergoing either an open (O-TAR) or robotic (R-TAR) TAR

Methods

-Retrospective cohort study of patients undergoing O-TAR or R-TAR from 1/2018-2/2020
-Patients stratified by age (≥ or <60 years) and by both age (≥60) and BMI
-Cost data ($) obtained for the index hospitalization

Cost ($)	Age < 60 (n=94)	Age ≥ 60 (n=117)	p-value
Lab	206.1	102.4	0.76
ICU	126.9	1176.5	0.57
OR	5,862.2	5,999.2	0.97
R&B	2,352.9	1,923.28	0.15
Pharmacy	797.0	819.5	0.60
Therapy	140.1	93.9	0.65
Total	11,005.3	9,119.3	0.75

Results

-211 patients (143 O-TARs; 93 R-TARs)
-Cohorts stratified by age were similar in defect size (p=0.6), BMI (p=0.4), OR time (p=0.5), LOS (p=0.4), and % O-TAR (p=0.3)
-Cohorts stratified by older age (≥60 years) and BMI were also similar in defect size (p=0.12), age (p=0.55), OR time (p=0.22) and LOS (0.50)
-No differences in total costs or itemized costs were found between the two cohorts

Cost ($)	AGE ≥ 60			p-value
	BMI <30 (n=41)	BMI 30-35 (n=50)	BMI ≥ 35 (n=26)	
Lab	353.2	143.4	94.6	0.31
ICU	3100.4	149.4	117.2	0.20
OR	6849.1	5339.6	5311.1	0.17
R&B	2308.6	2462.1	2213.2	0.92
Pharmacy	1122.3	645.1	576.0	0.47
Therapy	184.7	125.1	98.5	0.55
Total	15052.0	8954.4	8567.9	0.19

Conclusions

-Open and robotic TARs can be performed in older adults at similar costs
-Both chronological age and BMI are poor predictors of health care costs following an open or robotic TAR
-Improved screening criteria not solely reliant on chronological age is needed to better predict health-care cost utilization following TAR