

Conclusions SE is usually not necessarily dangerous, and conservative treatment is usually sufficient. However, on occasions like the case presented here, it can compromise the airway and require invasive therapeutic measures.

#35920 THE ASSOCIATION BETWEEN PREOPERATIVE FRAILTY AND HYPOTENSION DURING THE BEACH-CHAIR POSITION IN PATIENTS UNDERGOING TOTAL SHOULDER ARTHROPLASTY UNDER GENERAL ANESTHESIA WITH INTERSCALENE BRACHIAL PLEXUS BLOCK

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Background and Aims The beach-chair position (BCP) is commonly used for shoulder surgery but is known to increase hypotension incidence. Older age and interscalene brachial plexus block (ISB) have also been identified as risk factors for hypotension during BCP. As altered blood pressure control mechanisms and autonomic dysfunction, which cause hypotension, are more likely to occur in frail older patients, we investigated the association between preoperative frailty and hypotension during BCP in older patients.

Methods Patients aged ≥ 65 years who underwent elective total shoulder arthroplasty in BCP under general anesthesia with preoperative ISB were included. The frailty of participants was assessed before surgery using the Reported Edmonton Frail Scale. Quadriceps depth was measured by ultrasound preoperatively, and values < 2.3cm were considered significant. Hypotension was defined as a mean blood pressure < 65mmHg or a decrease of ≥ 20% from baseline.

Abstract #35920 Table 1 Demographic and intraoperative variables

Variable	n = 46
Gender, M/F (n)	18/28
Age (yr)	72.8 ± 6.3
BMI (kg/m ²)	25.8 ± 2.7
ASA classification (I/II/III)	5/37/4
Non-frail/ Prefrail/ Frail (n)	37/5/4
Hypertension (n)	32
Diabetes (n)	10
Duration of anesthesia (min)	154.4 ± 42.5
Duration of surgery (min)	102.8 ± 32.4
Duration of beach chair position (min)	132.3 ± 38.2
Angle of operation table (°)	42.4 ± 2.7
Fluid administration (ml)	1120 (820, 1820)
Blood loss (ml)	80 (30, 400)

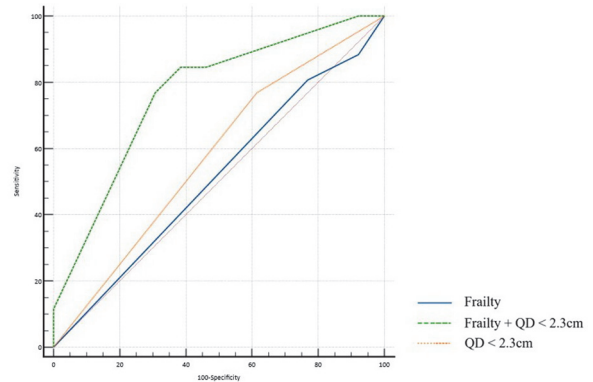
Data are presented as number, mean ± SD or median (interquartile range)

BMI: body mass index, ASA: American Society of Anesthesiologists

Abstract #35920 Table 2 Variables associates with hypotension during beach-chair position

	Hypotension	
	Odds ratio (95% CI)	Adjusted odds ratio (95% CI)
Age, year	1.055 (0.947 - 1.175)	0.973 (0.832 - 1.139)
Sex (reference: male)	2.333 (0.630 - 8.637)	1.705 (0.250 - 11.654)
BMI (kg/m ²)	0.882 (0.693 - 1.123)	
ASA classification		
I	Reference	
II	0.591 (0.059 - 5.905)	
III	0.750 (0.032 - 17.506)	
Diabetes	0.897 (0.193 - 4.172)	
Hypertension	1.667 (0.430 - 6.460)	
Frailty group(score)		
Non-frail group (0-5)	Reference	
Prefrail group (6-7)	1.692 (0.169 - 16.912)	0.337 (0.010 - 11.097)
Frail group (8-18)	1.269 (0.119 - 13.583)	1.157 (0.001 - 19.943)
Frail score	1.067 (0.828 - 1.375)	1.310 (0.766 - 2.240)
Quadriceps depth (cm)	0.123 (0.029 - 0.518)	
Quadriceps depth < 2.3cm	6.720 (1.502 - 30.071)	8.491 (1.389 - 51.897)

BMI: body mass index, ASA: American Society of Anesthesiologists, CI: confidence interval



QD: Quadriceps depth

Abstract #35920 Figure 1 The receiver operating characteristic (ROC) curves comparing the predictive power of hypotension during beach-chair position

Results Data were analyzed from 46 patients (mean age: 72.8 yrs). The incidence of hypotension during BCP was 71.7% (non-frail/prefrail/frail; 70.3%, 80% and 100%). A decreased quadriceps depth < 2.3cm was an independent risk factor for hypotension during BCP (odds ratio, 8.49, 95% confidence interval [CI], 1.38 – 51.90). The predictive power of hypotension during BCP was higher when both frailty and quadriceps depth were considered together, compared to considering frailty alone (AUC [95% CI], 0.766 [0.60-0.89] vs 0.51 [0.35-0.68], p=0.01).

Conclusions A reduced quadriceps depth is associated with hypotension during BCP. Assessing both frailty and quadriceps depth may enhance the screening tool for identifying older patients at risk of developing hypotension during BCP.

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