

Labor Anesthesia and Delivery Modalities in Super Obese Patients Receiving Anesthesia

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Background

- ▶ Super obese patients have a BMI ≥ 50.0 kg/m² and are considered higher risk obstetric patients with higher rates of cesarean deliveries (CD) (1)
- ▶ Purpose of this abstract is to review the prevalence of various anesthetic modalities used in labor and delivery anesthesia of the super obese parturient

Materials and Methods

- ▶ Conducted a retrospective review of patient charts from a single institution, IRB approved
- ▶ Patients were aged between 15-45 with a BMI ≥ 50.0 kg/m² with a documented anesthesia record
- ▶ Reviewed a total of 342 patient charts who met inclusion criteria

Results

Of the 342 patients

- ▶ 31.6% received epidural anesthesia
- ▶ 31.6% received spinal anesthesia
- ▶ 34.5 % received combined spinal epidurals (CSE) anesthesia

Looking at delivery methods, **only 17.3% of the patients had spontaneous vaginal deliveries (SVD)**, with the majority of patients receiving CD (82.7%)

Discussion

- ▶ Saw a high rate of CD delivery among the super obese patient population (82.7%)
- ▶ Only 54.6% of patients who received epidurals were able to delivery vaginally
- ▶ Some notes mentioned complications like arrest of descent, oligohydramnios, chorioamnionitis, NRFHT, preeclampsia, and breech position as the indication for the change in delivery plan from SVD to CD.
- ▶ **This study reinforces the assertion that obese patient populations have a higher rate of CD, especially in the super morbidly obese patients.**
- ▶ Given these findings, anesthetic plans for super morbidly obese patients should be prepared for the increased risk of CD.
 - ▶ Can check epidural coverage more frequently
 - ▶ Can carry anesthetic drugs necessary for conversion
- ▶ Future studies could improve upon this data collection by further stratifying the patient population by their preexisting comorbidities.

Table 1. Comparison of Delivery Methods for Super Obese Patiurents, SVD vs CD			
		Spontaneous Vaginal Delivery	Cesarean Delivery
Sample Size		N= 59	N= 283
Maternal BMI (kg/m2)	Mean	54.49	56.03
	Standard Deviation	4.18	6.13
	Minimum	50.10	50
	Maximum	71.94	94.29
Maternal Age (years)	Mean	29.08	29.32
	Standard Deviation	6.52	5.56
Gestational Age (weeks)	Mean	37.8	37.4
	Standard Deviation	1.65	2.21
Anesthesia Type (n)	Epidural	59	49
	Spinal	0	108
	CSE	0	118
	GA	0	19
	Conversion to GA	0	11

1. Satpathy, Hemant K et al. “Maternal obesity and pregnancy.” Postgraduate medicine vol. 120,3 E01-9. 15 Sep. 2008, doi:10.3810/pgm.2008.09.1920