

Introduction

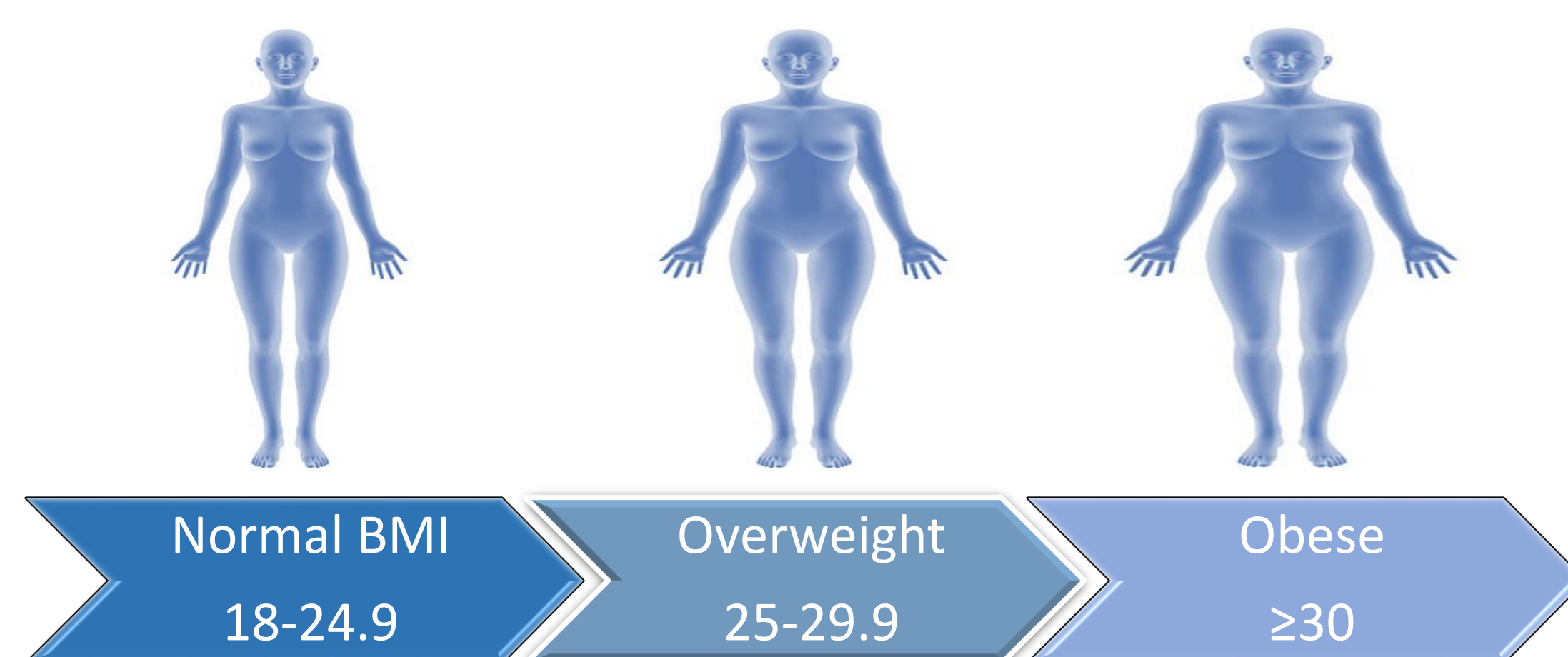
Lately, there has been an upsurge in the incidence of Cesarean delivery. This is associated with the development of intra-abdominal adhesions, one of the most common complications that surgeons face nowadays after performing CS. Unfortunately, intraoperative consequences of intra-abdominal adhesions are drastic and cannot be avoided unless preoperatively identified. Sliding sign in abdominal ultrasonography shows great promise in predicting intra-abdominal adhesions in some studies, with acceptable sensitivity and specificity. Evidence is lacking as to whether BMI can affect its accuracy.

Objective

Evaluation of the accuracy of the Sliding sign in predicting the presence and severity of intra-abdominal adhesions and correlation with BMI.

Methods

This is an observational cross sectional study conducted in the Obstetrics and Gynecology department (Kasr Al Ainy hospital – Cairo University) from March 2021 to August 2021. Patients included in this study were divided based on their BMI (according to the WHO classification) into:



In each patient, abdominal ultrasound was performed to elicit Sliding sign between the uterine wall and the anterior abdominal wall as described by **Drukker et al.** in his study in 2018.

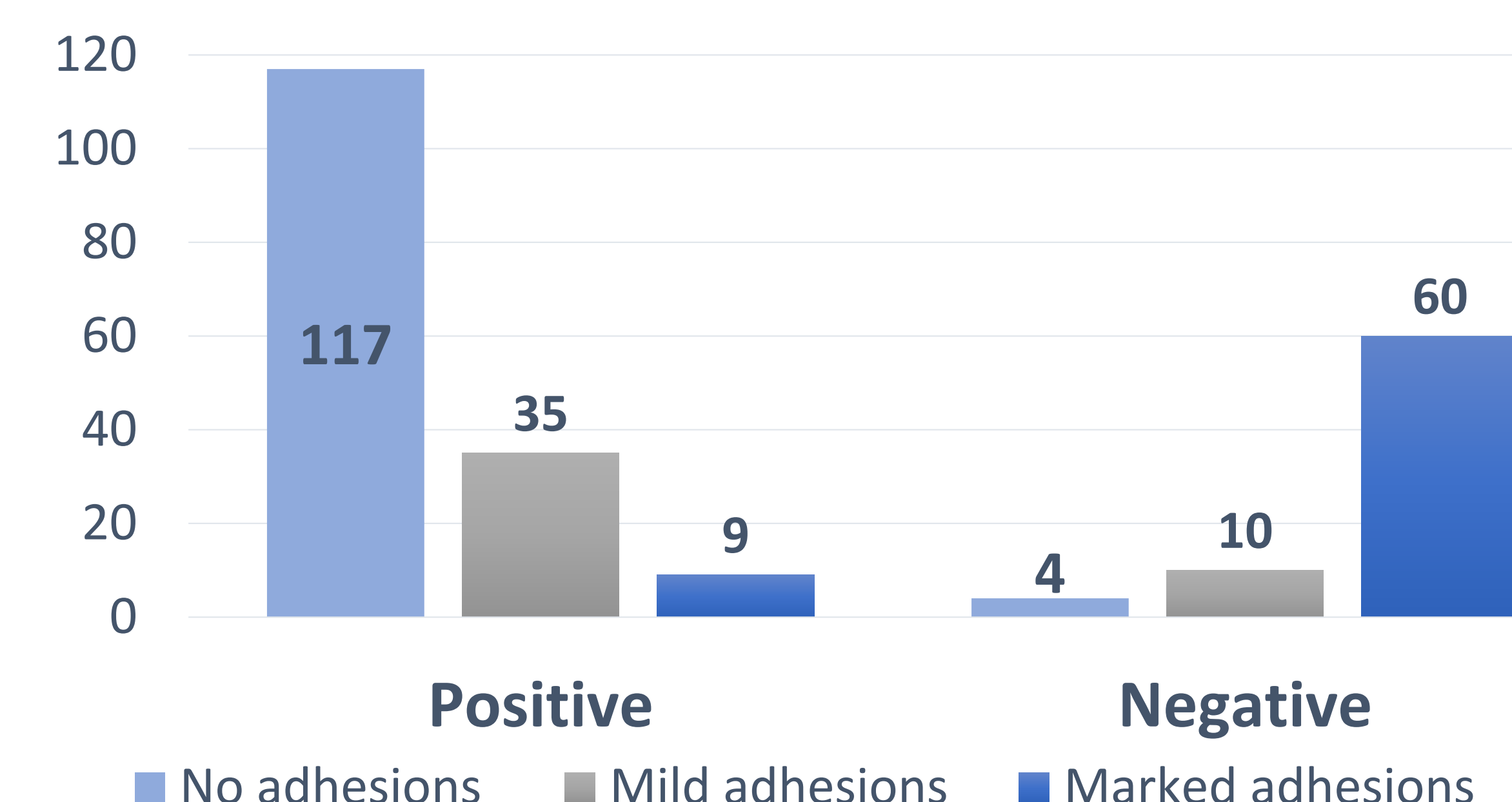
Intra-operatively, we graded the adhesions into no adhesions , mild adhesions and marked adhesions . Eventually, the operative findings were compared to the corresponding ultrasonographic Sliding sign.

Results

The mean age of participants was 29 years, while the mean BMI was 28 kg/m². The prevalence of adhesions was 48.51% totally while 29.36% of them had marked adhesions .

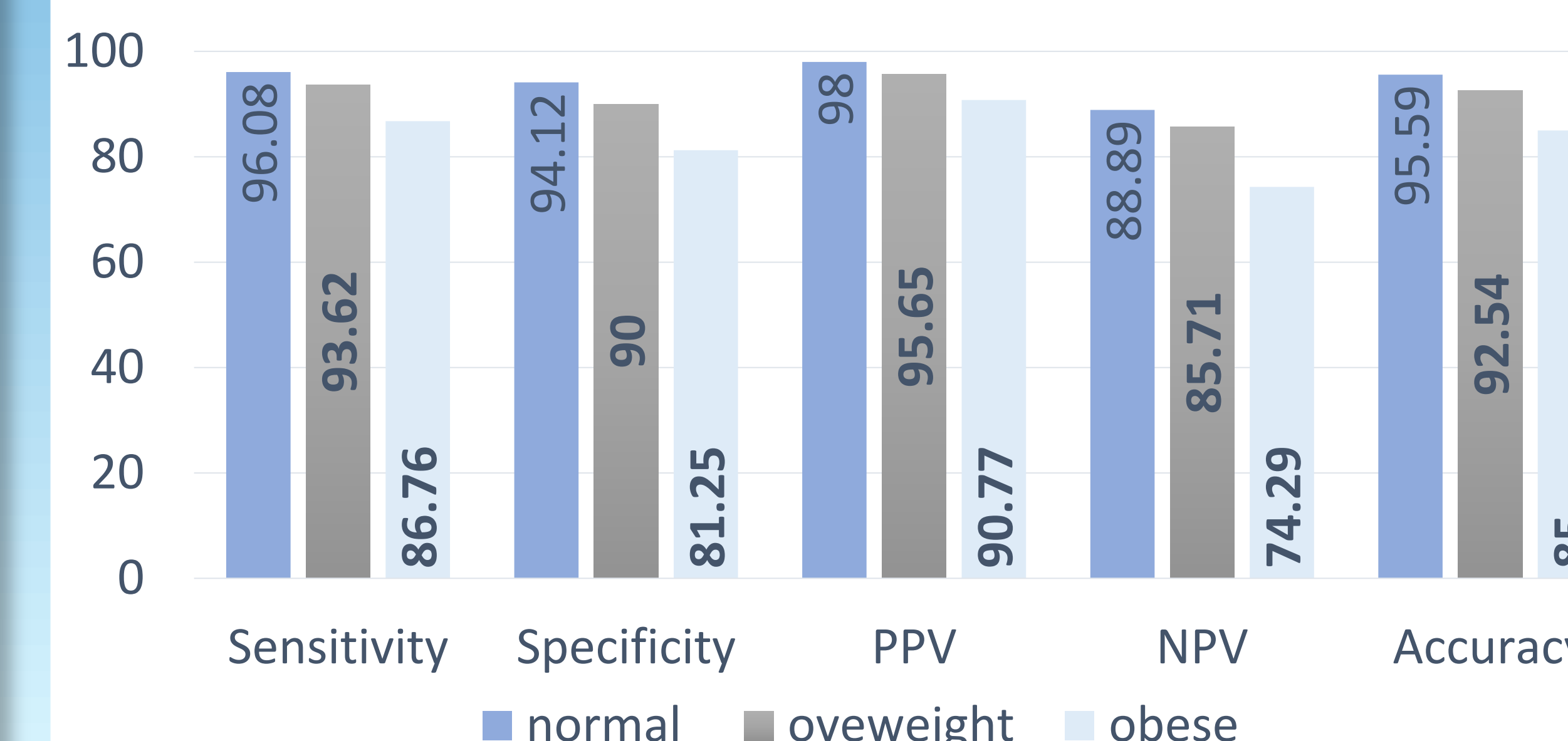
Diagnostic performance for the detection of severe intra-abdominal adhesions in women using sliding sign:

outcome	No/Mild adhesions	Marked adhesions	Total	
Sliding sign positive	152	9	161	94.4%PPV
Sliding sign negative	14	60	74	81%NPV
Total	166	69	235	



Effect of BMI in diagnostic performance for the detection of intra-abdominal adhesions in women using sliding sign:

	Normal BMI		Over BMI		Obese BMI		Total	P.value
Sliding sign	No/Mild adhesions	Marked adhesions	No/mild adhesions	Marked adhesions	No/mild adhesions	Marked adhesions		
Positive	49	1	44	2	59	6	161	<0.001
negative	2	16	3	18	9	26	74	
total	51	17	47	20	68	32	235	



Conclusion

Based on our results, Sliding sign can be used as a preoperative step for normal and average weight pregnant females undergoing elective CS with a history of prior pelvi-abdominal surgery to diagnose intraoperative adhesions.