

# SONOGRAPHIC ASSESSMENT OF THE UTERINE WALL CESAREAN SECTION SCAR

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## Introduction

Cesarean section rate is increasing in recent practice. It accounts the most commonly performed surgical procedure in women.

Women delivered by cesarean section are prone to some late complications such as CS niche, abnormally adherent placenta, trapped intrauterine device in previous scar and abnormal implantation of gestational sac at the scar.

Ultrasound offers a non-invasive approach to visualize the myometrial scar. It can assess its condition in both normal and pathological states.

## Aim of the work

To assess the ability of the ultrasound in evaluation of uterine Wall cesarean section scar.

## Patients and Methods

### Patients:

A total number of 500 female patients referred to Radiology Department of Alexandria University Main Hospital and El-Shatby Hospital, for pelvic ultrasound assessment. Out of these 500 women, 276(55.2%) were excluded due to absence of definite cesarean section delivery (subjected to normal vaginal delivery); the remaining 224 women (44.8%) fulfilled the inclusion criteria of the study and were enrolled.

### Methods:

All patients that fulfill the inclusion criteria were subjected to Full history taking, Clinical examination and pelvic ultrasonographic examination including transabdominal and transvaginal approaches. Further office hysteroscopy was performed to six patients complained of secondary infertility and three patients underwent pelvic MRI.

## Results

### The ultrasound findings in the study group.

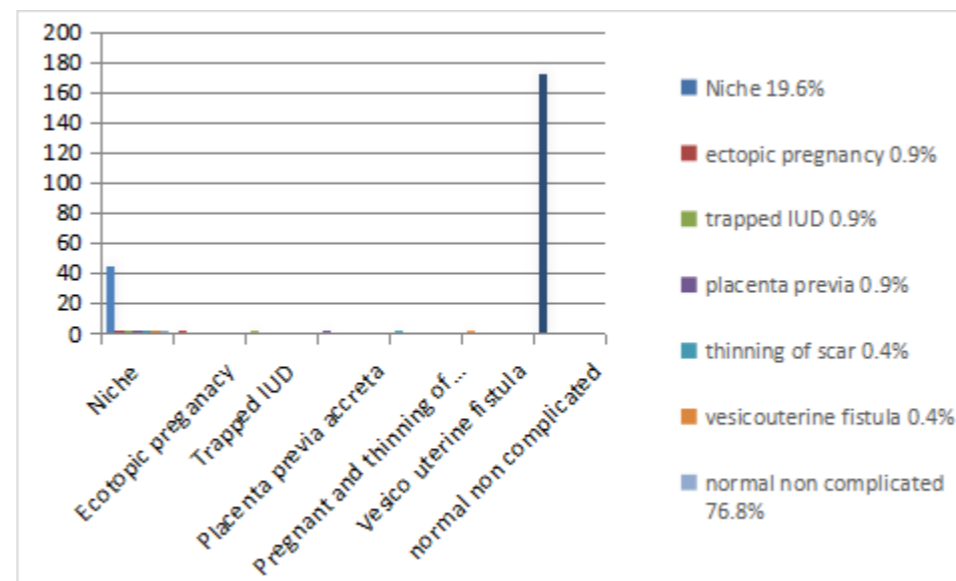


Table 1: pelvic ultrasound sensitivity, specificity, PPV, NPV and accuracy.

Overall Total sample (n:224)		Further confirmatory Ix		Sensitivity	Specificity	PPV	NPV	Accuracy
		-ve	+ve					
ultrasound	-ve	172	3	94.2 %	100 %	100	98.2	98.6
	+ve	0	49					

### ILLUSTRATIVE CASE

25 years old G2P1 female patient clinically presented with vaginal bleeding, positive pregnancy test. History of previous CS 4 years ago



Figure 1: Bulky uterus, harboring low lying single gestational sac at site of previous CS scar with no fetal pole or yolk sac within. Uterus after medical treatment shows normal scar with no visible gestational sac or remnant of conception.

**Diagnosis: abnormally implanted gestational sac at the site of previous cesarean section scar**

## Conclusion

- Ultrasound offers a non-invasive, easy and affordable approach to evaluate previous cesarean section scar.
- CS scar could be a cause of abnormal vaginal bleeding, subfertility or subsequent cesarean scar ectopic pregnancy, and morbidly adherent placenta.
- Ultrasound in diagnosis of uterine wall cesarean section scar pathologies shows high sensitivity, specificity and accuracy.