

Agreement of Transvaginal Ultrasound (TVS) and Per Operative Findings in Detecting Retained Products of Conception (RPOCs)

M. ZAFAR RAFIQUE¹, MOAZMA EJAZ², MAIMOONA GULSHAN³, MEHWISH TAHIR⁴, MAHAM ABID⁵, BINYAMIN BUTT⁶¹Professor and Head Radiology Department, Shalamar Hospital, Lahore²Medical Imaging Technologist, Shalamar Hospital, Lahore³Assistant professor Radiology, Shalamar Hospital, Lahore⁴Assistant professor Radiology, Shalamar Hospital, Lahore⁵Senior Registrar Radiology, Shalamar Hospital, Lahore⁶PGR FCPS, Gynae/ Obs Department, Shalamar Hospital, Lahore

Correspondence to Dr. Mehwish Tahir, Assistant Professor Radiology, Shalamar Hospital, Lahore

ABSTRACT

Aim: To determine the diagnostic accuracy of TVS and Per-operative findings in diagnosing retained products of conceptions (RPOCs)

Methods: A total of 161 suspected cases of RPOCs, visited the Radiology department, Shalamar Hospital, Lahore from 01-01-2021 to 31-12-2021 were done ultrasound using high-frequency probe for TVS..

Results: Out of 161 patients, 97 were found to have RPOCs on TVS. The mean age was 29.54±6.10 and the mean gestational age was 17.02±12.99. In 97(60.2%) cases having RPOCs, 46(63.9%) cases were with H/o abortion, 39(79.6%) with miscarriages, 12 cases (30%) with C-section. This study shows a significant association between TVS finding and per-operative findings i.e. 97(60.2%) cases have RPOCs detected by ultrasound and also detected by per-operative finding of mild and moderate amount of RPOCs.

Conclusion: TVS is the initial modality for detecting RPOCs. USG is a noninvasive technique and can be done on portable USG machine.

Key words: Retained products of conception, TVS, USG

INTRODUCTION

RPOCs is defined as persistence of placental or fetal tissue in the uterus following delivery, termination of pregnancy or a miscarriage^{1,4}. RPOCs is common cause of PPH after uterine atony. RPOCs is treated in a proper way after delivery². In one of the study, RPOCs was often diagnosed after first-trimester (17%) or second-trimester (40%) and spontaneous or therapeutic abortion after a third-trimester in 2.7% of cases.³ RPOCs is main cause of primary and secondary PPH. When RPOCs present as secondary PPH, it is necessary to differentiate it from endometritis, uterine dehiscence or perforation².

The objective of the study was to determine the diagnostic accuracy of TVS and Per-operative findings in diagnosing retained products of conceptions (RPOCs)

METHODOLOGY

A retrospective study was conducted in Gynae and Obstetric/ Radiology Department, Shalamar Hospital, Lahore for a period of 12 months i.e. January, 2021 to December, 2021. 161 cases were included. Cases of recent childbirths, miscarriage, C-section were included and cases with uterine infection and bleeding disorders like thalassemia and hemophilia were excluded. After obtaining the approval from the IRB Shalamar Medical and Dental College, data was obtained. The data was analyzed by SSPS version 20. Chi-square test was used to test the association between the variables. P-value <0.05 is considered significant.

RESULTS

Table 1: Frequency according to delivery type

Delivery type	n	%age
Abortion	72	44.7
Miscarriage	49	30.5
C-Section	40	24.8
Total	161	100

Table 2: RPOCs according to delivery type

Delivery type	RPOCs		Total
	Present	Absent	
Abortion	46(28.5%)	26(16.2%)	72(44.7%)
Miscarriage	39(24.2%)	10(6.2%)	49(30.4%)
C-section	12(7.5%)	28(17.4%)	40(24.9%)
Total	97(60.2%)	64(39.8%)	161(100%)

Table 3: RPOCs (per-operative findings) and RPOCs (USG finding)

Amount of RPOCs	RPOCs - USG		Total
	Present	Absent	
Mild amount	35(21.7%)	00	35(21.7%)
Mild and moderate	11(6.8%)	00	11(6.8%)
Moderate amount	51(31.7%)	00	51(31.7%)
Absent	00	64(39.8%)	64(39.8%)
Total	9 (60.2%)	64(39.8%)	161(100%)

DISCUSSION

A total of 161 cases are evaluated by TVS ultrasound and 97 were found to have RPOCs. In this study, 97(60.2%) cases having RPOCs, 46(63.9%) cases are with H/o abortion, 39(79.6%) with miscarriage and 12(30%) with C-section. H/o abortion shows higher frequency of RPOCs as compared to other causes. Other studies showed that RPOCs present upto 40% in 2nd trimester miscarriage or abortion⁵.

Our study shows more chances of RPOCs in cases with H/o abortions than miscarriages. In this study, we compare the TVS ultrasound findings and per-operative findings which shows that 97(60.2%) cases have RPOCs detected by ultrasound and also detected by per-operative finding of mild and moderate amount of RPOCs and 64(39.8%) cases have no detection on ultrasound and also not detected by per-operative findings. This shows a significant association between RPOCs detected by USG and by per-operative findings.

CONCLUSIONS

TVS is the first line imaging modality for detection of RPOCs. It is a noninvasive method and can be done on portable ultrasound devices. In this study, the higher incidence of RPOCs is in the patients with H/o abortions. This study also shows a significant association between TVS ultrasound findings and per-operative findings in detecting RPOCs.

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