

3D US EVALUATION OF IUD INSERTED DURING CESAREAN SECTION

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Introduction

The intra-uterine contraceptive device one of the Long - Long-acting reversible Contraception (LARC) is a safe and highly effective method of birth control for most females. The ideal time of insertion of IUD after cesarean section is a conflicting issue, some gynecologists prefer inserting IUDs during cesarean section soon after removal of the placenta, As IUD can decrease the rate of unintended pregnancy if initiated soon postpartum.IUD insertion while still in the delivery room is known as post-placental insertion (insertion of the IUD within 10 minutes). While other gynecologists prefer to insert IUDs at an interval of (42 days) at the end of puerprrium or six months after cesarean section, most of them insert IUDs after three months from cesarean section. Evaluation of a woman with a symptomatic IUD is done by transvaginal ultrasound to exclude malposition and other complications.3d ultrasound is more accurate because it can locate the entire IUD in a volume.

Aim of the work

Was to assess the site, position, and complications of IUD inserted during cesarean section.

PATIENTS

This randomized controlled study included 120 women who attended El-Shatby University Hospital for elective cesarean section and desiring immediate contraception.

Inclusion Criteria:

Pregnant women who attended for elective cesarean section and accept IUD as a birth control method.

Exclusion Criteria:

Upper segment cesarean section.

Previous myomectomy scar.

Cesarean for placenta accreta.

Prolonged premature rupture of membrane more than 12 hours or evidence of chorioamnionitis.

Abnormal uterine cavity.

METHODS

Following Informed consent, the patients were allocated randomly after approval to be included in the study into two groups: Group I (study group): (n = 60) Every patient in the study group will be subjected to Lower segment cesarean section by standard technique. At cesarean section, place Cupper T 380 IUD at the top of the fundus of the uterus manually. Before the incision of the uterus is closed, strings are passed through the cervix with the IUD insertion tube. Removal of the insertion tube through the scar. 2D US 24 hours after the operation and 10 days after the operation. 2D & 3D U.S. done after 42 days or more to evaluate displacement. Group II (Interval insertion control group): (n = 60) Every patient in the control group will be subjected to Lower segment cesarean section by standard technique. Six weeks later, IUD is inserted (cupper T380) by the standard Withdrawal technique. 2D US immediately after insertion and after 10 days. 2D & 3D U.S. done after 42 days or more to evaluate displacement. All patients are evaluated for Easiness of insertion, postoperative bleeding, pain, infection, expulsion, and IUD displacement using 3D U.S. at 42 days or more post-cesarean.

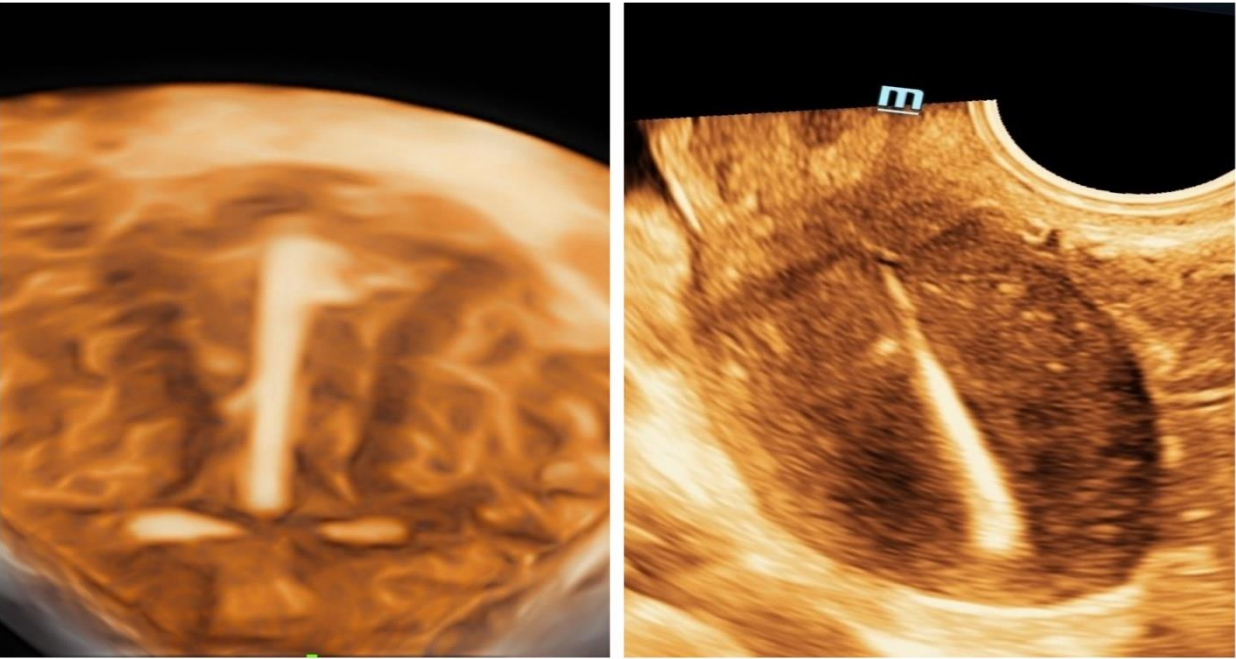


Figure (1) Ultrasound image of 3D US shows an inverted (malpositioned) IUD although IT appears to be normal in 2D US

Results

Table (1):Table (1) Outcome after 42 days in 2D and 3D				
		IUS		
		Group 1	Group 2	P*
Complete expulsion	2D	2 (3.3%)	0	0.15
	3D	2 (3.3%)	0	0.15
	P value	1	1	-
Low lying partial expulsion	2D	1 (1.7%)	1 (1.7%)	1
	3D	1 (1.7%)	1 (1.7%)	1
	P value	1	1	-
Inverted and partial expulsion	2D	1 (1.7%)	0	0.3
	3D	1 (1.7%)	0	0.3
	P value	1	1	-
Malposition	2D	6 (10%)	0	0.01
	3D	19 (31.67%)	0	0.001
	P value	0.003	1	-
Embedded in wall	2D	2 (3.3%)	2 (3.3%)	1
	3D	11 (18.33%)	2 (3.3%)	0.008
	P value	0.008	1	-
Normal	2D	48 (80%)	57 (95%)	0.012
	3D	26 (43.33%)	57 (95%)	<0.01
	P value	<0.01	1	-

Conclusion

There was a significantly high number of cases of IUD malposition and embedding in wall occurrence and there was a significantly lower number of cases of normal IUD insertion in group (1) study group more than occurred in group (2) control group. 3D ultrasound more accurately detects malposition, Embedding in wall occurrence and normal IUD insertion than 2D ultrasound. Also, There was no significant difference between groups regarding partial and complete expulsion.