

Clinical and Ultrasonography Evaluation of Pregnancy of Unknown Location in First Trimester of Pregnancy

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Abstract:

Background & Method: Present study was conducted with an aim to study clinical and ultrasonography evaluation of pregnancy of unknown location in first trimester of pregnancy. 500 Pregnant patients in the first trimester of pregnancy were included in the study. Complete clinical evaluation and general physical examination were performed and patients were then subjected to ultrasound examination.

Result: Among 500 pregnant females almost 5% were pregnancy of unknown location. 4% of all the pregnancy of unknown location was diagnosed to be ectopic pregnancy. 0.6% of pregnancy of unknown location was failed PUL. 0.4% of pregnancy of unknown location was persistent PUL. β -hCG level is best indicator for predicting ectopic pregnancy while progesterone is best indicator for viability. Serum progesterone levels can be helpful at determining the viability of pregnancies; however, they are not specific to pregnancy location.

Conclusion: Ultrasonography is paramount in utility as a diagnostic tool for ANC patients. When used in combination with clinical information and serum β -hCG levels, it can provide diagnostic and prognostic information regarding pregnancy confirmation, viability and rapid information regarding life-threatening conditions. One great concern of PULs is that they are cases of ectopic pregnancy whose diagnosis might be postponed.

Keywords: clinical, ultrasonography, pregnancy & trimester.

Study Designed: Observational Study.

1. INTRODUCTION

The first trimester of pregnancy consists of the first 12 weeks. The initial diagnosis of pregnancy is usually made by identifying the presence of serum beta-human chorionic gonadotropin [1]. Transvaginal ultrasonography (TVUS) is the imaging modality of choice for both diagnosis and imaging follow-up. In the first trimester, pelvic ultrasound is employed to establish the presence or absence of an intrauterine gestational sac and to evaluate the viability of the pregnancy [2].

A 'pregnancy of unknown location' is a descriptive term used to classify a pregnancy when a woman has a positive pregnancy test, but no pregnancy can be visualised on transvaginal ultrasound (TVS) [3].

Women should be followed up until the final pregnancy outcome is known which includes:

1. failing PUL

2. intra-uterine pregnancy
3. ectopic pregnancy
4. persisting PUL

Failed PUL

The spontaneous outcome of gestation occurs with negative human chorionic gonadotropin (hCG), but the exact location of gestation (i.e., whether intrauterine or ectopic) is never identified.

Persistent Pregnancy of unknown location

hCG does not decline spontaneously, an abnormal increase or plateau of hCG occurs (a variation of less than 15% in hCG titration over three consecutive 48-hour interval measurements), and TVUS does not show intrauterine or ectopic gestation[4].

These cases are usually small Ectopic pregnancy that are not visualized on ultrasound or represent the retention of the products of conception in the endometrial cavity with an active trophoblast. Cases of EP and PULP are considered high risk for complication[5].

Intrauterine pregnancy

Intrauterine gestation is not identified. Where possible, the IUP is subdivided into viable IUPs and nonviable IUPs. Viable IUP denotes ultrasound signs that are compatible with gestational age. IUP of uncertain viability denotes definite ultrasound evidence of IUP; however, ultrasonographic signs are insufficient to indicate whether the gestation is viable. Nonviable IUP: ultrasound signs show anembryonic gestation, miscarriage, or the retention of the products of conception

2. MATERIAL & METHOD

500 Pregnant patients in the first trimester of pregnancy were included in the study. Complete clinical evaluation and general physical examination were performed and patients were then subjected to ultrasound examination. Clinical findings and ultrasound diagnosis were correlated. Place- Study done in IMCHRC

Inclusion criteria

All the pregnant women of first trimester of pregnancy .
UPT positive booked and unbooked patients.
Pregnant women with increased level of Beta HCG.

Exclusion criteria

Pregnant women with more Than 12 week of gestation.
Patient with cormorbidities.
Twin pregnancy.

3. RESULTS

Table No. 1: Ultrasonography evaluation in first trimester of pregnancy

	Upt-positive	Pregnancy located on USG	Pregnancy not located on USG
Booked patient	367	363	04

Unbooked patient	133	132	01
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Among 500 pregnant females almost 5% were pregnancy of unknown location. 4% of all the pregnancy of unknown location was diagnosed to be ectopic pregnancy. 0.6% of pregnancy of unknown location was failed PUL. 0.4% of pregnancy of unknown location was persistent PUL. β -hCG level is best indicator for predicting ectopic pregnancy while progesterone is best indicator for viability. Serum progesterone levels can be helpful at determining the viability of pregnancies; however, they are not specific to pregnancy location.

Fig No. 01:

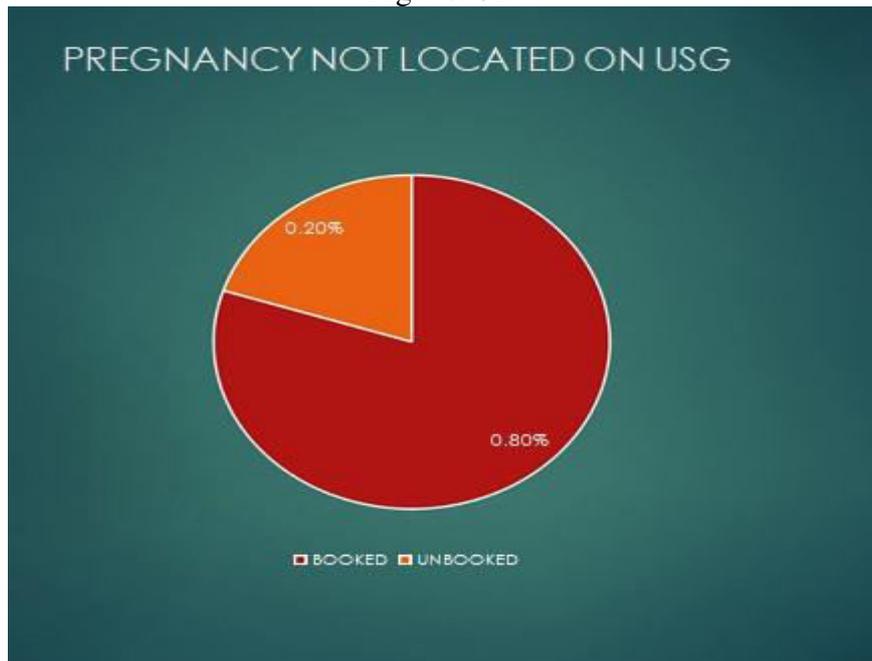


Fig No. 02:

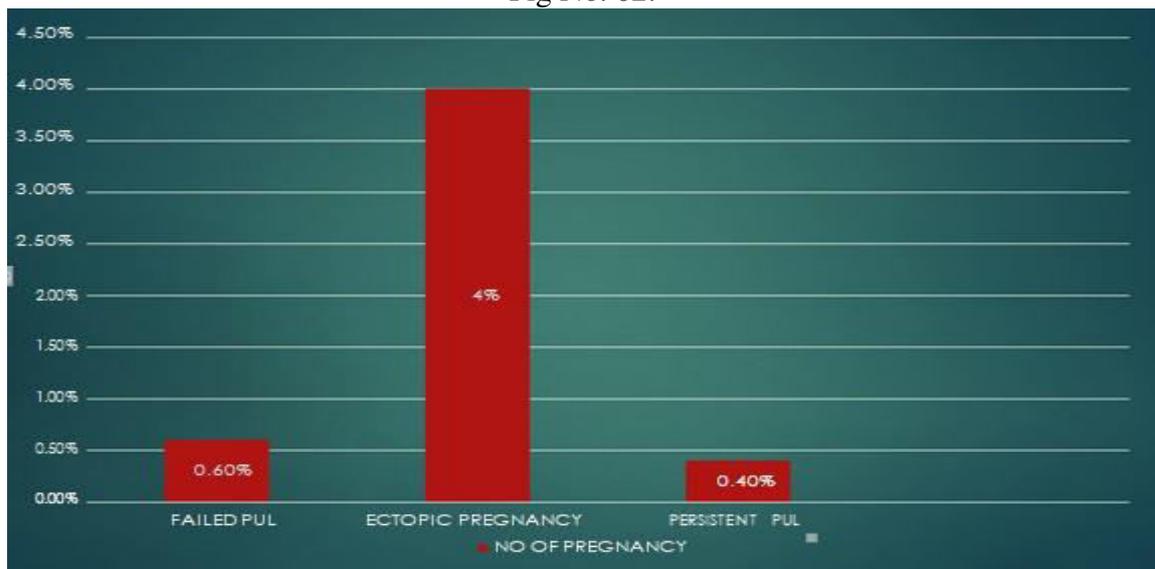
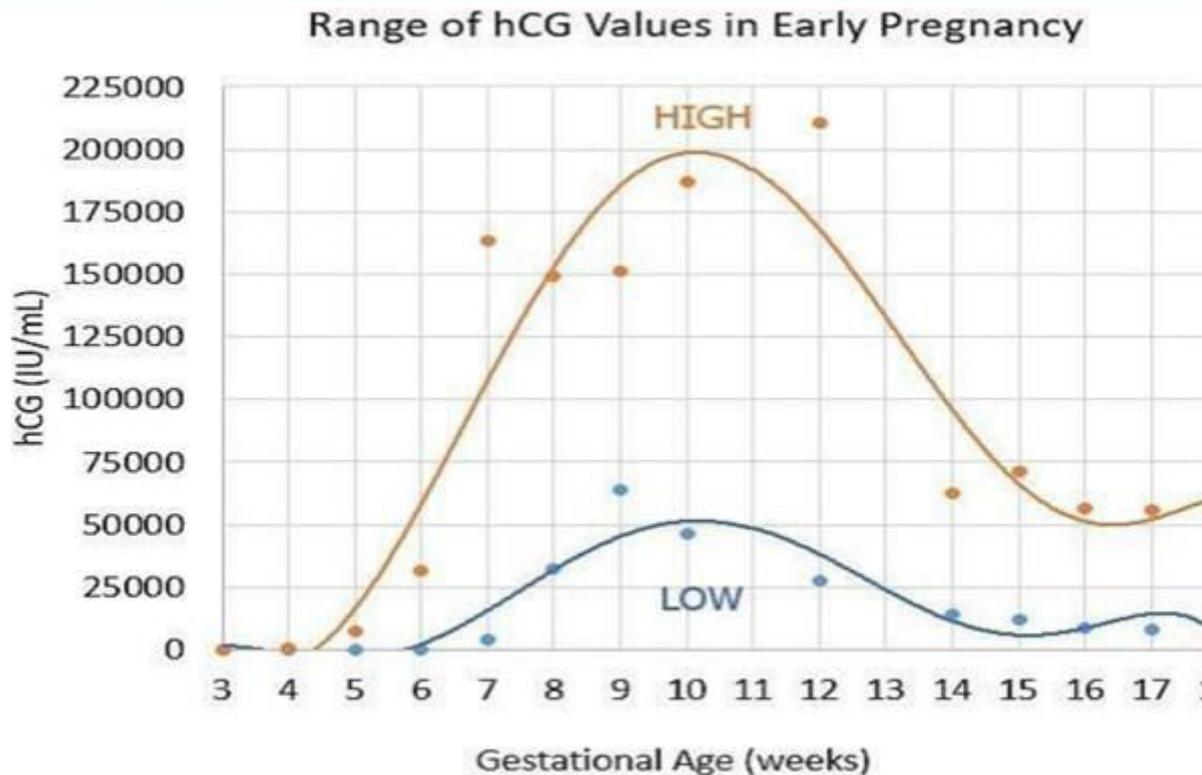


Fig No. 03:



4. DISCUSSION

Pregnancy of unknown location is encountered much less frequently but there's high incidence of morbidity. It should be noted that PUL does not mean an ectopic pregnancy (EP) [6]. It is not a final diagnosis and in a certain number of women the final diagnosis cannot be made.

Ectopic pregnancy is the most feared outcome of the PUL among all possible outcomes[7]. It is not always possible to determine the location of the pregnancy in cases of PUL since both miscarriage and ectopic pregnancy may resolve spontaneously without any treatment

Most PULs, result in complete miscarriage or IUP. Through early diagnosis and effective planning, the treatments can be equally effective[8].The advantages of ultrasound imaging include its widespread availability, relatively low cost, and the acquisition of real-time, high-resolution images. The risk of ectopic pregnancy still remains, even when the hCG ratio is ≥ 2 , as shown by 4% of those patients being diagnosed with ectopic pregnancy.

5. CONCLUSION

Ultrasonography is paramount in utility as a diagnostic tool for ANC patients. When used in combination with clinical information and serum β -hCG levels, it can provide diagnostic and prognostic information regarding pregnancy confirmation, viability and rapid information regarding life-threatening conditions. One great concern of PULs is that they are cases of ectopic pregnancy whose diagnosis might be postponed.

6. REFERENCES

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