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GYNAE SPECTRUM

Dear Doctor,

Greetings from Micro Labs. We are happy to bring you "**Gynae Spectrum**", which contains latest and interesting news in the field of Obstetrics and Gynaecology.

This issue contains:

- **Ultrasound in pre-operative classification of Molar Pregnancy.**
- **Women with post-pregnancy psychiatric disorder may have less live birth in the next pregnancy.**

Should you require any article or, medical information, please feel free to contact us
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Looking forward to your valuable feedback.

Best Regards,

Medical Team, Micro Labs Limited



Ultrasound in pre-operative classification of Molar Pregnancy.

Background:

Gestational trophoblastic disease (GTD) is a group of placental disorders which is associated with pregnancy.

Gestational trophoblastic disease comprises of complete molar (CMP) and partial molar pregnancies (PMP).

It can also lead to malignant conditions like invasive mole, gestational choriocarcinoma, placental site trophoblastic tumour and epithelioid trophoblast tumour.

Histopathology is the reference standard for diagnosing hydatidiform molar pregnancy (HMP).

Objective:

This study was undertaken to decipher the performance of pre-operative transvaginal ultrasound (TVS) in predicting hydatidiform molar pregnancy (HMP).

Method:

A retrospective study was conducted to assess the diagnostic accuracy of preoperative Trans vaginal ultrasound.

This study was conducted on women who had undergone both Trans vaginal ultrasound and histopathological examination of uterine curettings. Both these diagnostic procedures being done between January 2011–February 2017.

Trans vaginal ultrasound diagnosis of

partial Molar Pregnancy (PMP) comprised of assessing fetal parts and/or empty gestational sac with small cystic spaces adjacent to the gestational sac.

Trans vaginal ultrasound diagnosis of complete Molar Pregnancy (CMP) comprised of deciphering complex, echogenic intra-uterine mass/masses containing multiple small cystic areas.

Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), positive and negative likelihood ratios (PLR/NLR) for Trans Vaginal ultrasound were also reported.

However, the reference standard was histological findings.

Results:

4917 consecutive women who underwent transvaginal ultrasound & 1636 women who underwent surgical curettage for miscarriage were taken.

Histologically, 40 out of 4917 (0.6%) was found to have hydatidiform molar pregnancy (HMP).

25 out of 40 (62.5%) was being suspected of hydatidiform molar pregnancy.

15 out of 40 (37.5%) did not.

24 out of 40 (60.0%) had complete molar pregnancy (CMP). Amongst these 19 out of 24 (79.1%) were suspected on Trans vaginal ultrasound and 5 out of 24 (20.8%) were not.

16 out of 40 (40.0%) had partial molar



pregnancies (PMP). Amongst these 6 out of

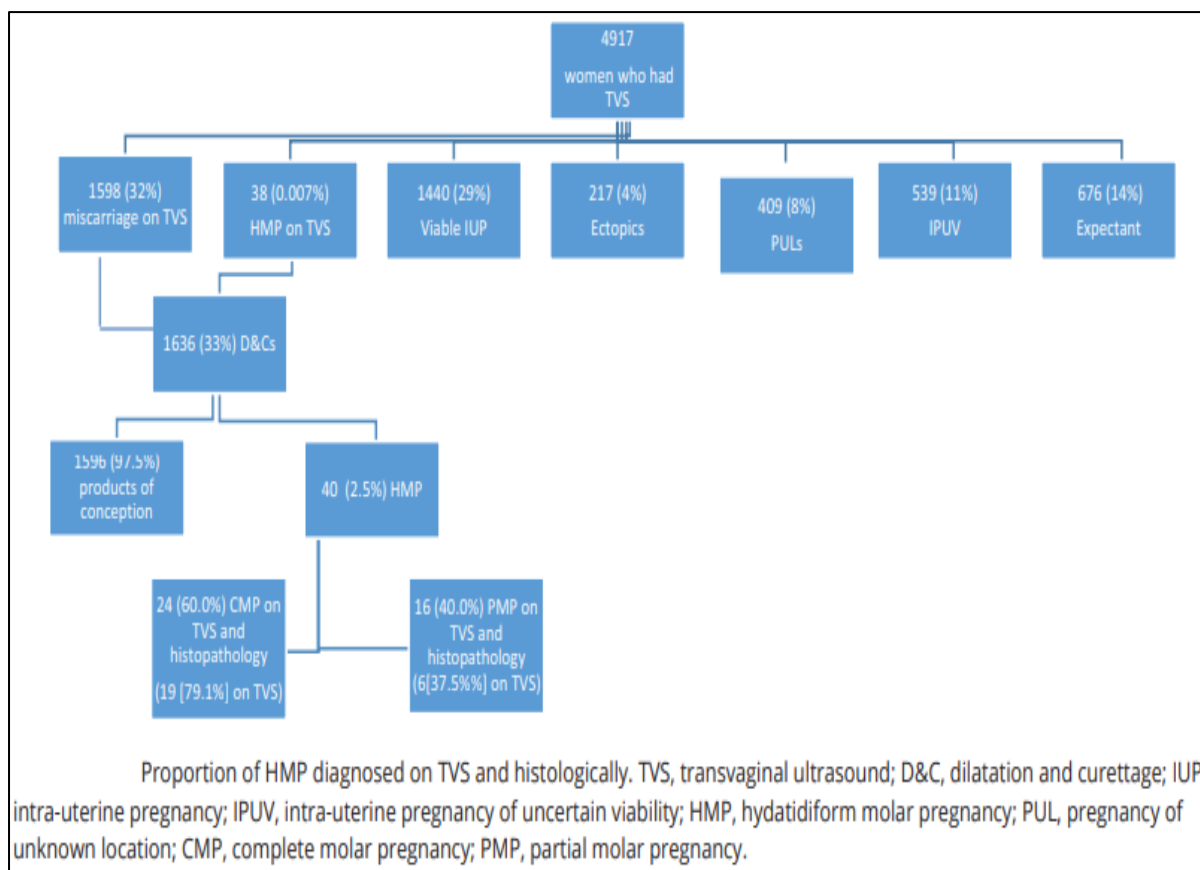
16 (37.5%) were suspected on TVS and 10 out of 16 (62.6%) were not.

The sensitivity, specificity, PPV, NPV, PLR and NLR of preoperative TVS were: 60.0,

99.1, 63.2, 99.0% 68.4, 0.4.

For CMP: 79.2, 99.8, 86.3, 99.6%, 421.7, 0.2.

For PMP: 37.5, 99.3, 35.3, 99.4%, 54.3, 0.6.



'True' histological diagnosis versus 'predicted' ultrasound diagnosis on the hydatidiform molar pregnancies managed surgically

Hydatidiform molar pregnancy	Histopathology positive	Histopathology negative	Total	
Transvaginal ultrasound positive	24	14	38	PPV = 63.2% CI: 71.6-96.2%
Transvaginal ultrasound negative	16	1582	1598	NPV = 99.0% CI: 98.5-99.3%
Total	40	1596	1636	
	Sensitivity = 60.0% CI: 43.3-75.1%	Specificity = 99.1% CI: 98.5-99.9%		

Positive likelihood ratio (LR+) = 68.4; CI: 38.3-122.1.

Negative likelihood ratio (LR-) = 0.4; CI: 0.3-0.6.

CI, 95% confidence interval; NPV, negative predictive value; PPV, positive predictive value.



'True' histological diagnosis versus 'predicted' ultrasound diagnosis on the complete molar pregnancies managed surgically†

Complete molar pregnancy	Histopathology positive	Histopathology negative	Total	
Transvaginal ultrasound positive	19	3	22	PPV = 86.3% CI: 66.8-95.2%
Transvaginal ultrasound negative	5	1593	1598	NPV = 99.6% CI: 99.3-99.9%
Total	24	1596	1620	
	Sensitivity = 79.1% CI: 57.9-92.9%	Specificity = 99.8% CI: 99.5-99.9%		

Positive likelihood ratio (LR+) = 421.7; CI: 133.4-1328.8.

Negative likelihood ratio (LR-) = 0.2; CI: 0.1-0.5.

CI, 95% Confidence interval; NPV, negative predictive value; PPV, positive predictive value.

†The women with PMP were omitted from this analysis.

'True' histological diagnosis versus 'predicted' ultrasound diagnosis on the partial molar pregnancies managed surgically†

Partial molar pregnancy	Histopathology positive	Histopathology negative	Total	
Transvaginal ultrasound positive	6	11	17	PPV = 35.3% CI: 18.7-56.4%
Transvaginal ultrasound negative	10	1585	1595	NPV = 99.3% CI: 99.1-99.6%
Total	16	1596	1612	
	Sensitivity = 37.5% CI: 15.2-64.6%	Specificity = 99.3% CI: 98.8-99.7%		

Positive likelihood ratio (LR+) = 54.3; CI: 22.9-129.1.

Negative likelihood ratio (LR-) = 0.6; CI: 0.4-0.9.

CI, 95% Confidence interval; NPV, negative predictive value; PPV, positive predictive value.

†The women with complete molar pregnancies were omitted from this analysis.

Conclusion:

Histology holds to be the gold standard for diagnosis of hydatidiform molar pregnancy. Trans vaginal ultrasound may be considered as an acceptable diagnostic tool for the diagnosis of hydatidiform molar pregnancy.



IN FOCUS

Women with post-pregnancy psychiatric disorder may have less live birth in the next pregnancy

Women who suffer from postpartum psychiatric disorders (especially with severe symptoms requiring hospitalization) may have a lesser probability of live birth in subsequent pregnancy when compared to women who don't.

Data from Danish registries were studied for 414,571 women who had their first child between 1997 and 2015. These women were followed up until next live birth, emigration, death, or, until they reached 45 years or June 2016, whichever was first. Women with postpartum psychiatric disorders in the first six months after their first live birth were identified. 4,327 (1%) women experienced psychiatric disorders. They were found to be 33% less likely to have a second live birth compared to women who did not have psychiatric issues.

Some women chose to avoid another pregnancy in order to avoid the psychiatric problems they experienced before. Reduction in subsequent live birth may have a relation to postpartum psychiatric disorder (due to problems with fertility or relationships with partners).

If there is a personal or family history of depression, it is advisable to seek help before, during, and after pregnancy.

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