

Predicting success of non-operative management of first trimester retained products of conception using ultrasound parameters

Iloh Lawrence Junior, Mathías Caroline, Dept of O&G, Nepean Hospital

Aim:

To compare the success of medical versus expectant management for first trimester retained products of conception based on ultrasound colour doppler scoring

Methods:

Retrospective cohort study with 1324 records screened for incomplete miscarriage managed medically with final analysis involving 73 patients compared with 176 patients managed expectantly from historical data.

Exclusion criteria: patients opting for surgical management.

Comparison of descriptive statistics (continuous and categorical variables) between patients with successful and failed non-surgical management

Multivariable analysis was used to determine whether the difference between these groups was significant.

If the 95% confidence interval does not include 1.0, then the odds ratio is considered to be statistically significant; p-value<0.05 is considered statistically significant

Results:

No difference between expectant and medical management in managing first trimester retained products of conception.

With expectant management, 85% of patients were successfully managed and with medical management 77% of patients were successfully managed.

With a score of 2, the odds of failure was 3 times higher (20%) than with a score of 1 (10%);

With a score of 3, 7 times (31%)higher odds of failure and with a score of 4, 27 times (45%) higher odds of failure

References:

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2. Casikar I, Lu C, Oates J, Bignardi T, Alhamdan D, Condous G. The use of power Doppler colour scoring to predict successful expectant management in women with an incomplete miscarriage. Human Reproduction. 2012;27(3):669-75.
3. Kamaya A, Krishnarao PM, Nayak N, Jeffrey RB, Maturen KE. Clinical and imaging predictors of management in retained products of conception. Abdominal Radiology. 2016;41(12):2429-34.



Nepean Blue Mountains
Local Health District

Discussion:

The volume of retained products did not affect success or failure in either management.

However, as the colour doppler study score increased, the odds of failure increased significantly irrespective of the type of non-surgical management.

The absence of colour flow in retained products of conception predicts a high success rate with non-surgical management irrespective of whether expectant or medical management was used. Hence colour doppler score can be an important tool in predicting success of non-operative management of first trimester retained products of conception.

RESULTS

Demographic characteristics	Successful management (n=210)	Failed management (n=39)	Adjusted odds ratio (95% CI)
No previous terminations (ref.) n(%)	181 (86.19)	34 (87.18)	
Previous terminations (1 or more) n(%)	29 (13.81)	5 (12.82)	1.77 (0.32-1.51)
Non-smoker (ref.) n(%)	160 (79.21)	32 (82.05)	
Smoker n(%)	42 (20.79)	7 (17.95)	1.30 (0.43-3.57)
Gestational age in days (Mean ± SD)	59.08±14.94	65.87±13.86	1.03(1.007- 1.066) *
CDS 1 (ref.) n(%)	135 (64.29)	14 (35.90)	
CDS 2 n(%)	52 (24.76)	13 (33.33)	3.24 (1.30-8.18) *
CDS 3 n(%)	18 (8.57)	8 (20.51)	7.63 (2.23-26.30) **
CDS 4 n(%)	5 (2.38)	4 (10.26)	27.30(4.38-181.99)***
Volume of RPOC ml (mean ±SD)	5.26 ±6.40	8.75±13.05	1.03 (0.98-1.08)
p-value< 0.05 – statistically significant * <0.01 **<0.001 ***<0.001			