

=ABSTRACT=

The Prediction of Depth of Trophoblastic Invasion in Tubal Pregnancy

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Objectives: To evaluate the relation between diagnostic clinical parameters and the depth of trophoblastic invasion in tubal pregnancy and decide the most predictable parameter.

Methods: Total 50 patients who were confirmed as tubal pregnancy pathologically, from Jan. to Dec. 1997, were included in this study. Menstrual missed periods was calculated by clinical history, volume of gestational mass was calculated as sphere, β -hCG was titered with preoperative blood sample. All surgical specimens were examined pathologically and divided into two groups such as intraluminal and extraluminal, defined as intact tubal musculature and trophoblastic invasion beyond musculature, n=22 and n=28, respectively. Statistical analysis was performed among three parameters and between each parameter and the depth of trophoblastic invasion. Statistical analysis included were Student's t-test, Chi square, linear regression, and linear correlation analysis using SPSS statistical package and statistical significance was determined as $P<0.05$.

Results: There was a correlation between volume of gestational mass and β -hCG($P<0.05$), but not between β -hCG and missed period or volume of gestational mass and missed period. β -hCG level was 1843.7 ± 1524.7 mIU/ml(Mean $\pm$ SD) in intraluminal and 12144.3 ± 10561.6 mIU/ml(Mean $\pm$ SD) in extraluminal.

There was a predictive correlation between β -hCG and the depth of trophoblastic invasion($P<0.05$), and cut off level 3,500 mIU/ml showed the highest sensitivity, specificity, positive predictive value, negative predictive value, 0.79, 0.86, 0.88, 0.76, respectively. Two parameters(volume of gestational mass and missed period) had no ability to predict whether intraluminal or extraluminal.

Conclusion: We suggest that successful medical treatment of tubal pregnancy depend on lesional intactness of vasculature for drug delivery. In patient selection for medical treatment, it should be important to predict intraluminal type because of intact vasculature. Of clinical parameters, β -hCG is single most predictive parameter, cut off level of 3,500 mIU/ml was the most reasonable level in this study.

Key Words : Depth of trophoblastic invasion, β -hCG, Missed menstrual periods, Volume of gestational mass

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15.1 230

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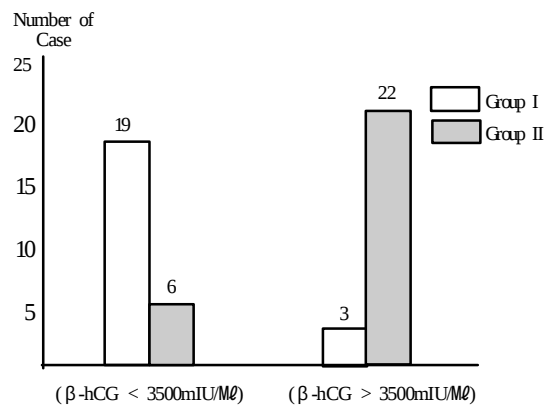


Fig. 3. Location of trophoblast(group I vs group II).

β-hCG, ,
β-hCG
(P=0.02), β-hCG
(P=0.45, P=0.41).
(β-hCG, ,
) I , II
(P=0.66, P=0.38), β-hCG
가
I , II
(P=0.008), β-hCG 3,500 mIU/ml
가 (sensitivity), (specificity),
(positive predictive value), (negative
predictive value) 78.6%, 86.4%, 88.0%
76.0% (Fig. 3).

30% ,
30% ,
5-7
가
Metho-
trexate Tanaka Methotrexate
Chotiner
Methotrexate
Methotrexate
가 3cm , β-hCG
6,000 mIU/ml 94%
90.7% 24.7%
Ichinoe 95.7%
52.6% 4,5,8,9
Steven 86%
β-hCG 가 1,000 mIU/ml 가
가 10,000 mIU/ml
7
Methotrexate
Methotrexate
가
3-4cm , β-hCG 1,000-8,000 mIU/ml,
10-13
Klein β-hCG 2,500 mIU/ml
2,500 mIU/ml
β-hCG 2,500 mIU/ml
가
14
가

Methotrexate 가
가
가

β-hCG
가
β-hCG
가
β-hCG
가
Klein β-hCG 2,500 mIU/ml
β-hCG 3,500 mIU/ml가
가
β-hCG
가
β-hCG 3,500 mIU/ml
() β-hCG
3,500 mIU/ml
가

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가 가

:

50

β -hCG 가

(I)

(II)

22, 28

. 가

SPSS

Student's t-test, Chi square,

(linear regression),

(linear correlation)

P<0.05

: β -hCG
ml($\pm$)

I

1843.7 $\pm$ 1524.7 mIU/ml($\pm$),

II

12144.3 $\pm$ 10561.6 mIU/

β -hCG

(P<0.05), β -hCG

. β -hCG

(P<0.05)

3,500 mIU/ml가 가

0.79, 0.86, 0.88, 0.76

:

가

β -hCG

3,500 mIU/ml가 가

:

,

,

, β -hCG