

# The prognostic value of maternal serum CA 125 on pregnancy outcome in early pregnancy

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## Objectives (목적)

This study was performed to investigate whether a sudden rise in the serum CA 125 level might predict spontaneous first trimester abortions, and concomitant check with serum  $\beta$ -hCG and fetal growth on sonographic findings might predict subsequent abortion earlier than other parameters without serum CA 125. And comparing with other parameters without serum CA 125, confirm to predictional value of subsequent spontaneous abortions.

## Methods (연구 방법)

A prospective study was performed in women presenting first trimester for threatened abortion. Maternal serum CA 125 levels were evaluated on first visit day and followed up weekly during the first trimester or until the time when diagnosed abortion to determine whether there was sudden increase immediately before or at the time of abortion. Serum  $\beta$ -hCG level evaluation and ultrasonographic examination was also performed to confirm ongoing pregnancy.

## Results (결과)

The mean value of serum CA-125 were significantly higher in abortion group than in ongoing pregnancy group. Initial serum CA 125 level did not differ between both groups. The CA-125 levels were increased in the abortion group whereas still lowed in ongoing group on second measurement. Using receiver-operating characteristic curve, cut off value of CA-125 in predicting spontaneous abortion is 140.0 IU/mL. This cut-off value has 69.2% of positive predictive ratio and 94.1% of negative predictive ratio ( $p < 0.01$ ). Furthermore it has 90% of specificity and 80% of sensitivity respectively.

## Conclusions (결론)

There was a definite correlation between high level or sudden increased serum CA 125 levels and subsequent spontaneous abortion. On prediction of early pregnancy outcome, evaluation of serum CA 125 level with serum  $\beta$ -hCG and ultrasonographic examination are more valuable.