

Workshop on Twin Pregnancy  
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## **Session II**

# **Pathophysiology of Twin Pregnancy**



## The Frequency of Ovular Resorption During the First Trimester of Twin Pregnancy

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A follow-up of 78 twin pregnancies diagnosed in the first trimester indicated that early ovular resorption occurred in 63% of spontaneous and 64% of Clomiphene-induced gestations, so that singletons were born. No failure was observed in the 12 twin conceptions following administration of gonadotropins or Cyclofenil.

**Key words:** Ovular resorption, Twin pregnancy, Ultrasounds, Clomiphene, Gonadotropins

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### INTRODUCTION

Improvements both in technique and in sonar criteria for diagnosis allow us to state that early resorption of one ovular sac after twin conception is now a well established phenomenon [1, 2]. The purpose of the present prospective study was to assess more closely the fate of twin conceptions following induction of ovulation. We report here some preliminary results of the ultrasound follow-up of 78 twin gestations diagnosed in the first trimester of pregnancy.

### PATIENTS AND METHODS

The study population was composed of 54 spontaneous and 24 induced twin conceptions. In the latter group, ovulation had been induced by Clomiphene Citrate in 11 cases, by Cyclofenil in 1 case, and by gonadotropins (hMG + hCG) in 12 cases. In each case, the diagnosis relied on the observation of two gestation sacs with distinct embryonic echoes and fetal heart movements.

### RESULTS

The vanishing rate for the total population was about 50% (41 out of 78 cases). However, early ovular resorption occurred in 63% of the spontaneous twin conceptions, but only in 29% of the induced ones. Among the latter, the vanishing rate of Clomiphene-induced pregnancies was 64%, while no ovular resorption was observed in the gonadotropin-treated group, nor in the single Cyclofenil-induced pregnancy.

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**COMMENT**

Our results are in agreement with those already published in the literature and suggest that the frequency of twin conception in the human is probably much higher than it is commonly assumed. In the present study, almost two-thirds of spontaneous twin conceptions diagnosed in the first trimester eventually resulted in the birth of a singleton. Although our series of induced conceptions is rather small, one observes that the fate of induced twin gestation appears to be strikingly different according to the drug used. Clomiphene-induced conceptions show the same failure rate of spontaneous conceptions. We therefore suggest that the well known differences in twinning rates following Clomiphene Citrate (8% to 10%) vs gonadotropins (25% to 30%) may rely more on differences in the vanishing rate than on differences in drug effectiveness.

**REFERENCES**

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