

## ULTRASONİK OLARAK SAPTANAN FETAL HAREKETLERİN DÜŞÜK TEHDİDİ ALTINDAKİ OLGULARIN İZLEMİNDEKİ YERİ

Serbülent ORHANER<sup>1</sup>, Güren DELLALOĞLU<sup>1</sup>, Aydın KAYA<sup>2</sup>,  
Ercan SEVİNÇ<sup>3</sup>, Hasan SANISOĞLU<sup>2</sup>

### ÖZET

Abortus imminens tanısı konulan 25 gebe kadına başvuru esnasında ultrasonik inceleme yapıldı. Olguların hepsinde fetal kardiyak aktivite saptanırken, ancak 14 olguda (%56) aktif fetal hareket saptandı. Fetal hareket saptanan olgularla saptanamayan olgular, gebelik prognozu açısından takibe alındı. Fetal hareket saptanan olgularda anne yaşı ortalama  $27.2 \pm 4.1$  iken, fetal hareket saptanamayan grupta  $26.6 \pm 5.3$  idi. Fetal hareket saptanan olguların 9 u (%64.3), diğer gruptaki olguların ise 6 sı (%54.5) primigravid idi. Fetal hareket saptanan grupta ortalama gebelik yaşı  $11.6 \pm 1.2$ , saptanamayan grupta ise  $11.5 \pm 1.4$  hafta idi. fetal hareket saptanamayan gruptaki olguların 4 tanesinde daha sonra abortus oldu (%36.4). Abortus olana kadar geçen süre  $7.2 \pm 4.1$  gündü. Bu gruptaki olguların 2 si ise daha sonra 28 ve 34 üncü gebelik haftalarında preterm doğum yaptı (%22.2). 28 haftalık iken doğan fetus daha sonra respiratuar distres nedeniyle kaybedildi. Bu gruptaki toplam gebelik kaybı %45.5, toplam perinatal mortalite %11.1 idi. Ultrasonik olarak fetal hareket saptanan grupta abortus gözlenmedi. Bu gruptaki olgulardan 2 tanesinde 34 ve 36.inci gebelik haftalarında preterm doğum oldu (%14.3). Bu gruptaki olgularda fetal kayıp gözlenmedi. Fetal hareket saptanamayan grupta abortus oranının ve toplam gebelik kaybının diğer gruba göre önemli ölçüde yüksek olduğu görüldü ( $p < 0.001$ ). Bunun dışında preterm doğum oranı ve perinatal mortalite oranı fetal hareket saptanamayan grupta diğer gruba göre yine anlamlı şekilde yüksek bulundu ( $p < 0.05$ ). Sonuç olarak abortus imminens yakınmasıyla başvuran olgularda fetal kardiyak aktivitenin saptanmasının iyi prognoz açısından yeterli olmadığı ama fetal hareketlerin saptanmasının iyi bir prognozu gösterdiği sonucuna varıldı.

Anahtar Kelimeler: Düşük tehdidi, ultrasonik inceleme, fetal hareket, gebelik kaybı.

### SUMMARY

#### ULTRASONICALLY DETERMINED FETAL MOVEMENTS IN THE FOLLOW-UP OF CASES WITH THREATENED ABORTION

Twentyfive pregnant women with threatened abortion whose gestational ages varied between 9 and 13 weeks were followed with ultrasonic examination. Fetal cardiac ac-

1 Trakya Üniversitesi Tıp Fakültesi Kadın Doğum Anabilim Dalı Yardımcı Doçenti

2 Trakya Üniversitesi Tıp Fakültesi Kadın Hastalıkları ve Doğum Anabilim Dalı Araştırma Görevlisi.

tivity were present in all cases, but active fetal movements were detected only in 14 of them (56.0%). Total pregnancy loss was significantly higher in the group with no demonstrable fetal movements ( $p < 0.01$ ). It was concluded that ultrasonic detection of the active fetal movements in the cases with threatened abortion showed a favorable prognosis.

**Key Words:** Threatened abortion, ultrasonic examination, fetal movements, pregnancy loss.

## INTRODUCTION

Widespread use of ultrasonic examination has offered an extremely valuable diagnostic tool for understanding many aspects of fetal life and also enabled us to evaluate most pathologic conditions more accurately. One of the important applications of ultrasound in obstetric practice is to evaluate the condition and prognosis of pregnancies complicated with threatened abortion. Detection of fetal cardiac activity and fetal movements has been used as a diagnostic tool for this purpose (1, 2, 3). In this study we tried to assess the reliability of these parameters.

## MATERIAL AND METHODS

This study was performed on patients who applied to Obstetric and Gynecology Department of the Trakya University Research Hospital and Kırklareli State Hospital with the complaint of vaginal bleeding during the first trimester of pregnancy between November 1989 and November 1990. All patients were evaluated by pelvic and ultrasonic examination at the first visit. Presence of fetal cardiac activity and fetal movements were especially explored. Minimum 20 minutes of scanning was performed to detect fetal movements. Only the patients showing fetal cardiac activity were included in the study. Patients were divided into two groups according to whether they showed active fetal movements or not. After initial examination all patients were hospitalized and kept under close observation until bleeding period ceased. The patients who recovered from threatened abortion were discharged and followed up closely until the end of their pregnancies. Patients who aborted eventually underwent uterine cavity control by curettage in order to make sure that no retention products left inside. The complications encountered during the course of pregnancies that continued and their outcomes were determined and the results between the two groups were analysed by Mann-Whitney test and  $p$  values below 0.05 was accepted as statistically significant.

**RESULTS**

The mean age of the patients in the first group (without demonstrable fetal movements) was  $26.6 \pm 5.3$ , and in the second group was  $27.2 \pm 4.1$ . The mean gestational age was  $11.5 \pm 1.4$  weeks in the first group, and  $11.6 \pm 1.2$  weeks in the second group. The distribution of the gestational ages of the patients is shown in Table I.

Table I: Gestational age distribution.

Gestational Age	Group 1	Group 2
9-10 weeks	1 ( 9.1 %)	0
11-12 weeks	8 (72.7 %)	11 (78.6 %)
$\geq 13$ weeks	2 (18.2 %)	3 (21.4 %)

Group 1. The cases without fetal movements

Group 2. The cases with fetal movements

Four of the patients in Group 1 aborted later. The mean period until abortion was  $7.2 \pm 4.1$  days. Two of the remaining patients in this group delivered preterm at 28 and 34 weeks (28.6%). The infant born at 28 weeks of gestation was lost one day later because of respiratory distress syndrome. Total pregnancy loss in this group was 45.5%. There was no abortion in the second group. Two patients delivered preterm at 34 and 36 weeks of gestation (14.3%). But all patients in this group survived. These results are presented in Table II.

Table II: Distribution of complications between groups.

	Grup 1	Grup 2
Abortion rate	36.4 % ‡	0
Preterm delivery	28.6 % †	14.3 %
Perinatal mortality	14.3 % †	0
Total pregnancy loss	45.5 % ‡	0

†  $p < 0.05$ , ‡  $p < 0.001$

Abortion rate and total pregnancy loss were significantly greater in the first group ( $p < 0.001$ ). Preterm delivery rate and total perinatal mortality rate were also greater in the first group ( $p < 0.05$ ).

## COMMENT

Ultrasonographic examination of fetuses has given us valuable information about fetal life. One of the great contributions of ultrasonographic examination is about the events occurring during embryonic period which were inaccessible before ultrasound era. It has been stated that determination of fetal movements in the cases with threatened abortion shows a favorable prognosis for these cases (1, 2, 3, 4). Anderson reported a successful pregnancy outcome in 72 of 74 cases (97.3 %) with threatened abortion who showed active fetal movements (2, 3). This figure is close to ours. For the same clinical indications Reinhold stated a 25% pregnancy failure rate in patients who showed no fetal movements (5). In our series this figure was found as (45.5%) and is greater than Reinhold series. It is difficult to explain this difference, but the smallness of our series may be a reason. In addition to these data Henner et al. (6) noted a general decrease both in amplitude and velocity of fetal movements in pathologic pregnancies. The presence of fetal cardiac activity in the absence of active fetal movements is not enough for a successful pregnancy outcome. As a result our findings correlate well with other studies in literature and show the importance of fetal movements in evaluating prognosis of the cases with threatened abortion.

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