

# Successful Pessary Use During Pregnancy: Report of Three Cases

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The success in use of pessary during pregnancy for preterm birth risk and prolapse of uteri is promising. There are limited data about the use of pessary during pregnancy in the literature. In current report, we assessed to present three pregnant women managed by same type of pessary successfully. All cases were in the second trimester of their pregnancies. One of the cases had subtotal uterine prolapse and the others were under risk of preterm birth.

**Key Words:** Pregnancy, Pessaries, Uterine prolapse, Premature birth

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## Introduction

Use of pessary for prevention of premature birth risk and uterine prolapse was being known for many years. Cervical incompetence is one of the most common cause of preterm birth. In these cases bed rest and cervical cerclage have been standart management protocol. Measurement of cervical length by ultrasound examination facilitates the diagnosis. Cervical cerclage is an invasive technique that requires anaesthesia and may be associated with different complications. Cervical pessary has been tried as a simple, non-invasive alternative that might replace the above invasive cervical cerclage operation.<sup>1</sup> Uterine prolapse during pregnancy is a rare condition with an estimated incidence of 1 per 10.000-15.000 deliveries.<sup>2</sup> Complications of this condition are patient discomfort, cervical desiccation and ulceration, urinary tract infection, acute urinary retention, abortion, preterm labor, fetal and maternal sepsis, and even maternal death.<sup>3</sup> The management varies from a conservative approach to laparoscopic treatment.<sup>4</sup>

In current report, we assessed to present three pregnant women managed by pessary successfully.

## Case Report

Case1; a 34-year-old multigravida (gravida: 2, parite: 1) with an intrauterine pregnancy at 15-weeks was admitted to our hospital with urinary retention. She has never had an urogynecological complaint before. We noted during her gynecol-

ogical examination that she had globe vesicale, subtotal uterine prolapse, second-third degree rectocele and had no cervical dilatation or effacement. Her obstetrical ultrasound revealed a normal fetus at the 15<sup>th</sup> gestational week. Urinalysis was normal, urine culture and cervical culture were negative. We emptied the bladder by foley catheter. Despite intermittent catheterization and bladder gymnastic her symptoms were the same. Then we performed Arabin cerclage pessary type ASQ (65/30/35) and afterwards her miction functions continued normally. At 38 weeks 6 days she delivered a 4.000 gr, 50 cm baby with an APGAR score of 7-9. Case 2; a 26-year-old multigravida (gravida: 7, parite: 3) was admitted to our hospital at the beginning of her pregnancy. She had a bad obstetric history with cervical incompetency. We initiated low molecular weight heparin, acetylsalisilic acid and progesterin therapy and planned cerclage at 13 weeks of pregnancy. Repeated cervical cultures were positive despite sensitive antibiotic treatment and operation was delayed continuously. At 16<sup>th</sup> week of pregnancy Arabin cerclage pessary was applied and she was discharged from the hospital. She was hospitalized two times for risk of preterm birth and observed palliatively. At 36<sup>th</sup> gestational week active labor started and a 2500 gr, 48 cm baby with an APGAR score of 7-9 was born via cesarean section because of breech presentation. Case 3; a 27 year-old multigravida (gravida: 2, parite: 1) with a twin pregnancy at 9 weeks was admitted to our hospital with vaginal bleeding. Her past history included a pregnancy by in vitro fertilization ending with early preterm birth at 21<sup>st</sup> week. She was discharged from the hospital after medical treatment. At 23<sup>rd</sup> week of her pregnancy she was admitted with labor pain. At cervical examination 2 cm dilation and %60 effacement was noted. Ultrasonographic examination revealed 15 mm cervical length and funneling. Arabin cerclage pessary was applied and tocolysis was initiated. In clinical follow up contractions stopped and cervical examination had no progression. After mobilization she was admitted at 32<sup>nd</sup> week and delivered by cesarean section. She gave birth to two babies 1.200 and 1.250 gr., 40-41 cm, with APGAR scores of 7-9. At her

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last visit she told that she had a spontaneous pregnancy after that twin pregnancy; without any medications, pessary or cerclage she had delivered a stillborn baby at 26<sup>th</sup> week.

## Discussion

Uterine prolapse is a rare condition among reproductive ages. Many causes can be responsible for this situation especially obstetrical traumas. Clinical management differs from conservative to radical methods. Complications of this condition are patient discomfort, cervical desiccation and ulceration, urinary tract infection, acute urinary retention, abortion, preterm labor, fetal and maternal sepsis, and maternal death.<sup>3</sup> Acute urinary retention is very rare during pregnancy.<sup>5</sup> Our first case was a pregnant woman at 15<sup>th</sup> week of gestation presenting with urinary retention due to subtotal uterine prolapse. We applied cervical pessary and her symptoms were resolved. The pessaries themselves can cause vaginal discharge, erosion and urinary retention,<sup>4</sup> but in our patient it had been therapeutic. In a case report, authors reported the usage of Arabin cerclage pessary in a woman with a live second trimester pregnancy, uterine prolapse and acute urinary retention. They told that this pessary was useful in order to correct the urinary retention and prevent preterm delivery.<sup>6</sup>

Another indication for the use of pessary is cervical incompetency. In the other cases we applied cervical pessaries for preventing preterm birth. Many different management strategies have been tried for this, like bed rest, prophylactic tocolysis and cervical cerclage. But none of them showed any effectiveness.<sup>7</sup> Liem et al.<sup>8</sup> reported results of a multicenter study which aimed to determine whether a cervical pessary could effectively prevent poor perinatal outcomes in twin pregnancies and found that in this population prophylactic use of a cervical pessary does not reduce poor perinatal outcome. Abdel-Aleem et al.<sup>9</sup> designed a review on the affect of cervical pessary for the prevention of preterm birth in women under risk of preterm birth. They reported that only one study showed beneficial effect of cervical pessary in reducing preterm birth in women with a short cervix. They also advised more trials in different settings to achieve more accurate result about this situation. The pessary application is a simple and noninvasive method for preterm birth risk although its effectiveness is suspicious. We applied cervical pessaries at 16<sup>th</sup> and 23<sup>rd</sup> weeks of gestation to our patients. However they had preterm delivery at 36<sup>th</sup> and 32<sup>nd</sup> weeks respectively, both of the patients had taken home healthy babies.

In conclusion, we think that use of pessaries during pregnancy due to preterm birth risk and uterine prolapse may be an alternative therapy to cerclage and other treatments. There is

limited data about pessary use in the literature and large studies are needed.

## Gebelikte Başarılı Pesser Kullanımı: Üç Olgu Analizi

Gebelikte, uterin prolapsus ve erken doğum riski nedeni ile başarılı pesser kullanımı umut vericidir. Literatürde gebelik esnasında pesser kullanımı ile ilgili sınırlı veri mevcuttur. Bu çalışmada, aynı tip pesser ile başarılı bir şekilde tedavi edilen üç olgunun sunumu amaçlanmıştır. Olguların hepsi ikinci trimesterde idi. Bir olguda subtotal prolapsus mevcut olup diğerleri ise erken doğum riski altındaydı.

**Anahtar Kelimeler:** Gebelik, Pesser, Prolapsus uteri, Prematür doğum

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