

# Vagynal Delivery After vNOTES Surgery: Our Experience

## vNOTES Cerrahisi Sonrası Vajinal Doğum

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### ABSTRACT

Better cosmetic results, easy access to the peritoneal cavity from the natural orifice, and less postoperative pain have made vNOTES surgery popular recently. vNOTES surgery is preferred in both benign and malignant gynecological diseases. However, there is not enough data in the literature on how the scar tissue which develops after anterior and/or posterior colpotomy will react during vaginal delivery. We present a patient who had successfully delivered after (vNOTES) surgery. This shows that clinicians do not need to choose cesarean delivery without obstetric reason in patients who have undergone vNOTES surgery.

**Keywords:** vNOTES surgery, delivery after vNOTESsurgery

### ÖZET

Daha iyi kozmetik sonuçlar, periton boşluğuna doğal orifisten kolay ulaşım ve postoperatif daha az ağrı olması vNOTES cerrahisini son dönemde popüler yapmıştır. vNOTES cerrahisi hem selim hem de habis jinekolojik hastalıklarda tercih edilmektedir. Ancak anterior ve/veya posterior kolpotomi sonrası gelişen skar dokusunun vajinal doğum sırasında nasıl tepki vereceği konusunda literatürde yeterli veri bulunmamaktadır. Bu olgu sunumunda vNOTES sonrası normal vajinal doğum deneyimimizi paylaşmayı amaçladık. Bu olgudan elde ettiğimiz tecrübemize dayanarak vNOTES ameliyatı geçirmiş hastalarda normal vajinal doğum yapılabileceğini düşünüyoruz.

**Anahtar Kelimeler:** vNOTES cerrahisi, vNOTES sonrası vajinal doğum

Natural orifice transluminal endoscopic surgery (NOTES) is one of the most current topics of recent times. The technique is being developed day by day. It has obvious advantages over laparotomy and laparoscopic surgery.<sup>1,2</sup> Although postoperative pain and duration of operation are less than laparoscopic surgery, its superiority in terms of postoperative complications has not been demonstrated.<sup>3</sup> vNOTES surgery has better cosmetic results. However, it is not recommended to be used in cases such as endometriosis and closed culdosac. vNOTES was first

described for the treatment of benign gynecological disorders and the safety of the procedure has been confirmed in the literature.<sup>4</sup> By improving the techniques, it has been argued that vNOTES can also be preferred in malignant cases.<sup>5</sup> The possible effects of colpotomy of the posterior fornix on pregnancy and delivery are not fully known. The issue of vaginal delivery after vNOTES surgery has not been adequately covered in the literature. Herein, we share our experience of normal vaginal delivery after vNOTES.

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## CASE

The patient was a 28-year-old healthy woman with a previous history of 1 ectopic pregnancy. In the previous admission of the patient with complaints of groin and low back pain, vaginal spotting, delayed menstruation ectopic pregnancy was detected. Following posterior colpotomy, alexis was placed, pneumovagina was created, and left salpingectomy was performed after the ectopic focus was observed. After controlling the bleeding, the posterior fornix was sutured primarily and salpingectomy with vNOTES was performed. No late complications were observed in the patient who was discharged on the first post-operative day.

Three months later, the patient applied to our outpatient clinic with the suspicion of pregnancy. In the ultrasonography, intrauterine located 5 week+1 day compatible gestational sac was observed. Beta HCG value was found to be 2348 mIU/mL. During the pregnancy, no health problems were observed. At 39 weeks + 3 days the patient was admitted to the delivery room because of cervical 4-5 cm dilation and 70-80% effacement. The patient, whose non-stress test follow-ups were normal, 5 hours after admitting, gave birth to a 3325 g girl through spontaneous vaginal mediolateral episiotomy. The patient's 5-minute APGAR score was found to be 8. The placenta was separated spontaneously, and then the episiotomy was repaired consequently. The posterior colpotomy are performed one year ago was controlled and no scar tissue was found (Figure 1). The patient was discharged without complications 24 hours after delivery. Informed consent was obtained from the patient.

## DISCUSSION

vNOTES which is becoming more and more common, is preferred in almost all benign gynecological and some pelvic prolapse surgeries. However, there is not enough data in the literature on how the scar tissue which develops after anterior and/or posterior colpotomy will react during vaginal delivery. In a study evaluating 20 patients who had vaginal delivery after vNOTES surgery, it was reported that no complications were observed during and after delivery.<sup>6</sup> In another study, which evaluated seven patients, nei-

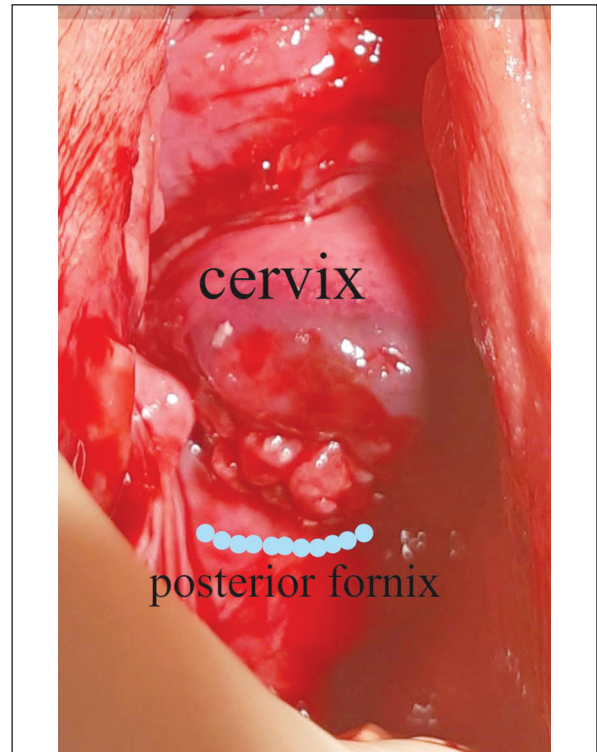


FIGURE 1: No scar was found in the posterior fonix of the patient after vaginal delivery.

ther intrapartum nor postpartum complications were observed. Our case report also supports this limited information in the literature. Probably, dramatic changes develop in the histology of the vaginal wall during pregnancy that make vaginal delivery possible.

## CONCLUSION

Posterior colpotomy performed during vNOTES surgery causes scar formation in the posterior fornix. The major concern among practitioners is whether this scar tissue will rupture during vaginal delivery. Although there is a lack information in the literature, we think that there is no harm in vaginal delivery for patients who have undergone vNOTES surgery for benign reasons, unless there are obstetric reasons.

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### **Conflict of Interest**

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### **Authorship Contributions**

**Idea/Concept:** Aytaj Jafarzade; **Design:** Aytaj Jafarzade; **Analysis and/or Interpretation:** Aytaj Jafarzade; **Writing the Article:** Aytaj Jafarzade; **References and Findings:** Aytaj Jafarzade.

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