

**Bilateral Senkronize Over Torsionlu Bebek Hasta****Bilateral Simultaneous Ovarian Torsion in Baby**<sup>1</sup>Aytaç TAŞÇI, <sup>2</sup>Hasan ARIK, <sup>3</sup>Güleç Mert DOĞAN<sup>1</sup>Department of Pediatric Surgery, Sinop Atatürk Devlet Hastanesi, Sinop, TURKEY<sup>2</sup>Department of Anesthesiology, Malatya Education and Research Hospital, Malatya, TURKEY<sup>3</sup>Department of Pediatric Radiology, Malatya Education and Research Hospital, Malatya, TURKEYAytaç Taşçı: <https://orcid.org/0000-0002-4024-5219>Hasan Arık : <https://orcid.org/0000-0001-7935-6832>Güleç Mert Doğan: <https://orcid.org/0000-0002-2305-9625>**ÖZ**

Pediyatrik hastalarda bilateral senkronize over torsiyonu nadirdir. Biz bu nadir vakanın tanısını, tedavisi ve sonuçlarını literatür eşliğinde paylaşmak istedik. Üç aylık kız çocuğu iki gündür olan huzursuzluk nedeniyle acil servise getirildi. Yapılan doppler ultrasonografisinde bilateral overlerde kanlanma görülmedi. Hasta acil şartlarda ameliyata alındı. Her iki overde torsiyon olduğu görülüp, detorsiyon uygulandı. Peroperatif over kanlanması düzelmedi buna rağmen biyopsi alındı ve oofektomi yapılmadı. Postoperatif takipte sağ overin kanlanması görülmeye başlandı. Hasta halen takipte ve sağ overde kanlanması devam etmektedir. Literatürde bilateral senkronize over torsiyonu nedeniyle dört olgu mevcuttur. Biz bu çalışma ile over koruyucu yaklaşımın bazen tatmin edici sonuçları olabileceğini sunmak istedik.

**Anahtar Kelimeler:** Bebek, bilateral, over torsiyonu, senkronize

**ABSTRACT**

Bilateral simultaneous ovarian torsion is rare in pediatric patients. We wanted to share the diagnosis, treatment and results of our patient with bilateral concurrent ovarian torsion with the literature. The three-month-old girl was brought to the emergency room because of unrest for 2 days. Doppler ultrasonography showed no vascularity in bilateral ovaries. The patient was taken into operation immediately. Detorsion was applied to both ovaries. Although the blood circulation of the ovaries did not improve, the ovaries were preserved and no oophorectomy was performed. In the postoperative follow-up, the blood supply of the right ovary began to be observed. The patient is still in follow-up and right ovarian blood supply continues. We presented the 4th case in the literature due to bilateral synchronized ovarian torsion. We wanted to present that the ovarian protective approach in these patients' surgery may be satisfying even in a limited case.

**Keywords:** Baby, bilateral, ovarian torsion, synchronous

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**INTRODUCTION**

Ovarian torsion is a pathology that requires urgent surgery and has an incidence of 4.9 / 100.000. In addition, 49% of cases are seen in the child age group.<sup>1</sup> Often ovarian torsions occur unilaterally and in puberty in children. Additional pathology has

been described in ovarian torsions encountered in young children.<sup>2,3</sup> As far as we know, there is a limited number of bilateral simultaneous ovarian torsions in childhood.<sup>1</sup>

In this study, we wanted to evaluate the diagnosis, treatment and follow-up of a baby with simultane-

ous bilateral ovarian torsion without additional pathology.

### CASE REPORT

Informed consent / consent form was signed by the family. The three-month-old girl applied to the emergency room due to uneasiness and unwillingness to eat. He has never had a complaint before. In prenatal follow-up, there was no pathology. He was the second child of the 31-year-old mother. We learned that the patient had been complaining of unrest for 2 days and was interpreted by the family as gas pain. There was restlessness in the examination of the baby and exacerbation of crying in the abdomen (tenderness). In the laboratory tests, the white blood cell was 18,000 and the CRP was 4,2 mg/L. Abdominal ultrasonography and the patient made the left ovary 32x20 mm, 34x22 mm in size is in the right ovary, both ovaries were increased in size. Follicle cysts with a millimeter size were present in both ovaries. In the Doppler examination, no blood was observed in the bilateral ovaries.

The patient was taken to the operation with a preliminary diagnosis of ovarian torsion within the first 4 hours of admission. It was observed that the left ovary rotated 3 times (1080 degrees) and 2 times (720 degrees) in the right ovary. Detorsion was applied to both ovaries. Both ovary circulation was still disturbed ([figure 1](#)). Hot compresses were applied to the ovaries, but their blood supply did not improve. Then, an incision was made in the ovarian capsule and the circulation was not improved. Biopsy was taken from the ovaries (Frozen biopsy could not be performed in our hospital since there were no on-duty pathologists in night). Then oophoropexy was applied.

The patient was not discharged in postoperative care and was discharged on the 2nd day. Follow-up of the patient was provided by pediatric surgery and pediatric endocrine. As a result of the pathology, ovarian tissue containing ischemic necrotic areas was seen in both ovaries. Postoperative 3rd month ultrasound showed doppler blood supply in the right ovary. however, there was no blood supply in the left ovary ([Figure 2](#)). The postoperative 6th month control USG correlated with the previous usg. The patient's controls are still continuing at the 9th postoperative month.

### DISCUSSION AND CONCLUSION

Synchronized ovarian torsion are very rare cases. When the literature was scanned, it was seen that 3 synchronized cases were detected to date.<sup>1</sup> Our case is the 4th case with synchronized ovarian torsion in the literature.

Although bilateral ovarian torsions can be seen at any age, it peaks in the prepubertal age and newborn baby. The prepubertal age is the age range that appears incapacitated.<sup>4</sup> Patients with synchronized bilateral ovarian torsion have been reported at prepubertal age,<sup>1</sup> but no cases have been reported in the neonatal period.

An important part of the ovarian torsions detected in the neonatal period occurred in the prenatal period, while less of them are torsions that occur after birth. Diagnosis is often made with prenatal usg in patients with antenatal ovarian torsion and they are clinically silent. In the torsions that occur after birth, patients experience clinical symptoms with restlessness and unwillingness to eat.<sup>4</sup>

Predisposing factors such as ovarian cyst and tumoral masses accompany pathology in 51-84% of patients with ovarian torsion.<sup>4</sup> In asynchronous bilateral ovarian torsions, although tumoral masses are not detected, cysts are accepted as a predisposing factor.<sup>2</sup> However, ovarian teratoma has been reported in 2 of the 3 cases published in synchronized ovarian torsions.<sup>1</sup> There are data indicating that ovarian hyperstimulation causes ovarian torsion in adults.<sup>3</sup> In addition, the increase of hormonal activity is held responsible in prepubertal ovarian torsions.<sup>4</sup> The fact that our case is a baby makes us think that there may be torsion in babies due to hormones that can pass through the mother. However, we do not have sufficient data.

The main problem with ovarian torsions is the loss of ovarian tissue. Loss of ovaries can be devastating for the family and child. Organ-preserving treatments have been preferred especially in recent years in the treatment of ovarian torsion. There are no published guidelines on the treatment of bilateral ovarian torsions in particular.<sup>2</sup> There is insufficient data on the treatment of synchronized ovarian torsions. In our study, we wanted to have an idea about the viability of the ovary and eliminate the possibility of a tumoral mass by taking a perioperative biopsy. In addition, we aimed to protect the maximum ovarian tissue by protecting both ovaries and fol-

lowing the blood flow in the next stage of the ovary by performing oopheropexy.

In the literature, there is insufficient data on the late results of patients with bilateral ovarian torsion.<sup>2</sup> In the first year of our case follow-up, the child is still being followed up by endocrine and pediatric surgery. Due to the young age of the child, it is followed up with US and there is blood in the right ovary, while the left ovary is not detected in the last ultrasound and it is thought to go to atrophy.

Synchronized ovarian torsion are extremely rare cases. In such patients, the application of oophorectomy can have devastating consequences for the patient. Conserving the ovarian tissue will be better than expected, and it will be correct to preserve the ovarian tissue.

**Ethics Committee Approval:** The permission was obtained from the patient for this study. There was no need for the Ethics Committee's Approval.

**Conflict of Interest:** No conflict of interest was declared by the author.

**Author Contributions:** Concept – AT, HA ; Supervision HA; Materials –AT, GMD; Data Collection and Processing – GMD, HA; Analysis and Interpretation – HA, AT; Writing – HA, AT.

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**Figure 1.** Detorsioned synchronized bilateral ovarian torsion.



**Figure 2.** Doppler ultrasonography image of the ovary in the 3rd postoperative month (While blood was detected in the right ovary, there was no blood on the left).