in all cases by demonstrating the retrograde perfusion from the pump twin to the acardiac twin using color flow Doppler. Perinatal outcomes of all cases were evaluated.

**Results:** The mean maternal age of the patients was 27.3  $\pm$  6.08 years. The mean week of procedure was 18.5  $\pm$  4.04, mean week of delivery was 31.7  $\pm$  4.16. The time between the procedure and delivery was 13.2 $\pm$  6.8 weeks. Cord coagulation was performed in the first case in the 24th week, and an 1100 g baby was delivered by cesarean

section in the 28th week after preterm premature rupture of membranes (PPROM). Cord coagulation was performed in the second case at the 19th week, and she was delivered at 34 weeks with a weight of 2350 g due to preterm labor. Case 3 underwent radiofrequency ablation at 16 weeks, and was delivered by cesarean section at 36 weeks due to preterm labor. Intrafetal laser was applied to the fourth case in the 15th week. She was delivered in the 28th week by cesarean section due to PPROM, weighing 1110 grams. The last case resulted in neonatal death.

	Procedure week	procedure	Birth week	Delivery reason	The time between the procedure and birth	Neonatal outcomes
Case 1	24 W	Cord coagulation	28W	PPROM	4W	Healthy
Case 2	19 W	Cord coagulation	34W	Preterm labor	15W	Healthy
Case 3	16 W	ARF	36	Preterm labor	20 W	Healthy
Case 4	15	Intrafetal laser	28	PPROM	13 W	Die

**Discussion:** TRAP occurs in 1% of monochorionic pregnancies, 1 in 35000 of all pregnancies.It is characterized by the presence of a TRAP or acardiac mass perfused by an apparently normal (pump) twin. The risk of death of the pump fetus in the conservatively managed TRAP sequence is 30% at 18 weeks of gestation. Intrauterin fetoscopic methods such as cord coagulation, cord ligation, photocoagulation, RFA, and intrafetal laser therapy are used to prevent the death of the pump fetus.

**Conclusion:** Treatment modalities should be planned according to the gestational week, technical possibilities, and the experience of the team. It should be known that the morbidity of a healthy baby may increase due to premature birth in fetoscopic procedures.

Keywords: Cord coagulation, intrafetal laser, trap

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## **OP-10 Selective fetal reduction with intrafetal laser in twin-twin transfusion syndrome**

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7

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**Objective:** Twin-twin transfusion syndrome (TTTS) is a condition that complicates 10-15% of monochorionic twin pregnancies. Fetoscopic laser photocoagulation

(FLP) is an established treatment. Selective fetal reduction (SFR) is one of the treatment options for TTTS. SFR can be performed by various methods.

Intrafetal laser is a medical procedure that uses lasers to treat certain conditions in fetuses while they are still in the womb. TTTS is used to treat conditions such as selective intrauterine growth restriction (sFGR), twins with reverse arterial perfusion (TRAP) and fetal tumours.

Here we report a rare case of intrafetal laser for SFR in a late-gestation MCDA twin pregnancy complicated by TTTS.

**Case:** A 26-year-old woman was referred to our clinic with a G2P1Y1, MCDA twin pregnancy at 20 weeks and 5 days. The first-trimester ultrasound was unremarkable. We diagnosed Quintero stage 4 by ultrasound. The following day, the patient underwent fetoscopic laser photocoagulation under general anaesthesia. The procedure was surgically successful and no intra- or post-operative complications were observed. Worsening hydrops in the recipient fetus and Doppler flow abnormalities in the ductus venosus were noted at 3 weeks after the procedure.

The selective fetal reduction was offered to the recipient fetus. SFR was performed by intrafetal laser at 24 weeks gestation.



Pregnancy is currently ongoing. At 34 weeks, the fetus currently has FGR. However, pregnancy followup will continue as Doppler flow is good.

**Discussion:** TTTS is a serious complication of monochorionic twin pregnancies. SFR is a treatment option for TTTS, especially in late stages or with a poor

prognosis. SFR can be performed using several techniques, including umbilical cord occlusion, radiofrequency ablation, bipolar coagulation and intrafetal laser therapy.

Intrafetal laser therapy is an innovative approach that uses ultrasound guidance to deliver laser energy to the body or organs of a specific twin fetus. This treatment modality has been shown to treat a variety of conditions including TTTS, Selective Fetal Growth Restriction (sFGR), Twin Reverse Arterial Perfusion Sequence (TRAP) and fetal tumours. It is well known that intrafetal laser is usually performed between 12-18 weeks of gestation. In this case, we have shown that intrafetal laser can be performed at 24 weeks of gestation.

**Conclusion:** We performed selective fetal reduction with intrafetal laser at 24 weeks gestational age. We did not observe any complications. This case may be encouraging for the use of intrafetal laser in later weeks. However, as it is a single case, more cases are needed to see the real effect and to evaluate possible adverse outcomes.

Keywords: Monochorionic twin, fetoscopic laser, ttts



## **OP-11 Prenatal diagnosis of a fetus with 45,X47,XYY mosaicism**

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**Objective:** 45,X/47,XYY mosaicism is quite rarely reported in fetuses, children and adults. Therefore, the true prevalence of the condition is still not well documented.<sup>[11]</sup> The first case was described by Jacobs et al. in 1961.<sup>[2]</sup> It is considered to be a type of mixed gonadal dysgenesis and most of the cases are diagnosed postnatally. The phenotype is highly variable ranging from Turner stigmata to normal male. Sonographic phenotypic characteristics are usually too subtle to identify making the condition difficult to diagnose prenatally. Although ambiguous genitalia signs such as cliteromegaly, labial fusion, hipospadias, micropenis may be the major findings, some other associated anomalies like increased nuchal translucency or hypoplastic nasal bone have been reported.

**Case:** 27 years old mother with her fourth pregnancy after an abortion and a termination because of body stalk anomaly was referred for counselling due to an increased combined risk of for Trisomy 21. No other significant maternal risk factor except for iron, vitamin D, folate deficiency, history of nephrolithiasis, recurrent

urinary tract infections and group B streptococcus carriage was detected. Ultrasound scan at 17 weeks revealed shortness of fetal femur, bilateral choroid plexus cysts and hyperechogenic bowel. Prenatal diagnosis via amniocentesis was offered and the parents accepted the procedure.





**Results:** Second trimester fetal anatomic scan at 22 weeks detected increased nuchal fold thickness, cardiac left ventricular echogenic focus, muscular ventricular septal defect and relative micrognathia in addition to aforementioned findings (Figure1). QF PCR Analysis of amniotic fluid for 13, 18, 21, X, Y chromosomes determined 35% X0, 14% XYY mosaicism. Definitive karyotype analysis accordingly confirmed 45,X0/47,XYY mosaic chromosomal pattern. The parents were provided with detailed and extensive genetic - prognostic counselling and finally opted for the termination of pregnancy at 23rd week. Feticide was performed and 450 gr externally normal male fetus was delivered subsequently. Parental karyotype analysis was later revealed to be normal.

**Conclusion:** Coexistence of several prenatal minor sonographic fetal findings and elevated trisomy risks of standard serum biochemical tests should lead to further evaluation of the pregnant patient. Keeping in mind the relative lower sensitivity of non-invasive prenatal tests for gonosomal anomalies, the option of invasive prenatal