International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Rajashekar R et al. Int J Reprod Contracept Obstet Gynecol. 2024 Sep;13(9):2541-2543
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20242519

Case Report

Triple to double trouble: a rare case report of fetal reduction of triplets to twin pregnancy

Radhika Rajashekar*, Munikrishna Munisamaiah

Department of Obstetrics and Gynecology, Sri Devraj URS Academy of Higher Education and Research, Kolar, Karnataka, India

Received: 29 June 2024
Revised: 08 July 2024
Accepted: 08 August 2024

***Correspondence:**
Dr. Radhika Rajashekar,
E-mail: radhikashekar468@gmail.com

ABSTRACT

There has been an increase in triple pregnancies in the last few years due to the increasing age of mothers and the use of birth control devices. To reduce the risks associated with triplets, embryo reduction (ER). The most common procedures are ultrasound-guided transabdominal injection of potassium chloride into the fetal heart or chest in trichorionic triamniotic (TCTA) pregnancies, or ultrasound-guided laser ablation or radiofrequency ablation in dichorionic triamniotic (TCTA) pregnancies (DCTA). 23-year-old GA1, who had amenorrhea for 6months with satisfactory fetal movements, came with complaints of abdominal pain. She gives history of conceiving after ovulation induction and history of fetal reduction. On presentation, patient was conscious oriented, tachycardia was present. On examination, uterus 24-28weeks size, and presented in active labour. Bed side ultrasound scan was done which showed dichorionic diamniotic twin gestation, with presence of FHR of both twins. She had a spontaneous expulsion of abortus of twin-A and twin-B and twin-C expelled with intact sac in toto. Post-delivery she had fever episodes with thrombocytopenia for which she was evaluated further. Multiple pregnancies are increasing due to developments in birth control services. Multiple pregnancy reduction improves fetal outcomes by reducing the risk of premature birth and other complications. There are reports showing that there is a higher risk of miscarriage and stillbirth in monochorionic and dichorionic triple pregnancies compared to trichorionic pregnancies and other complications such as twin-to-twin transfusion syndrome, growth inequality, twin anemia polycythemia sequence. In our case, spontaneous labor occurred at gestational age of 21 weeks, that is, before 24 weeks, and after thorough assessment of our patient, different measures were not taken to stop labor since patient came in active stage of labour. Triplet pregnancies reduced to twin pregnancies had significantly lower risks of adverse pregnancy outcomes, severe preterm deliveries, and low birthweight than nonreduced triplet pregnancies. However, triplet pregnancies reduced to twin pregnancies were potentially associated with a 5.6% increased risk of miscarriage.

Keywords: Fetal reduction, Triplet pregnancy, Miscarriage

INTRODUCTION

There has been an increase in triple pregnancies in the last few years due to the increasing age of mothers and the use of birth control devices.[1] To reduce the risks associated with triplets, that is miscarriages and preterm birth, embryo reduction (ER).[2]

The most common procedures are ultrasound-guided transabdominal injection of potassium chloride into the fetal heart or chest in trichorionic triamniotic (TCTA) pregnancies, or ultrasound-guided laser ablation or radiofrequency ablation in dichorionic triamniotic (TCTA) pregnancies (DCTA).[3]

CASE REPORT

A 23-year-old GA1, who had been experiencing amenorrhea with satisfactory fetal movements for 6 months, was referred to our tertiary hospital from Leela Sai Hospital complaining of abdominal pain since 1 day. Present pregnancy, she gives history of conceiving after ovulation induction and history of fetal reduction done at 3 months of amenorrheoa in view of triplets to twin pregnancy. She visited a local private hospital with 21 weeks 4 days gestation with complaints of pain abdomen since 1 day and was referred to RLJH for further management. She gives history of one spontaneous abortion at 1 and half months of amenorrhoea, 1 year back. She also gives history of typhoid fever and recurrent thrombocytopenia 4 years back for which she was managed conservatively. On presentation, patient was conscious oriented, tachycardia of 110 bpm with blood pressure of 100/60 mmHg, SpO_2 97% on room air, respiratory rate of 20 cpm, body mass index (BMI) was 24.2 kg/m^2. On examination, uterus 24-28 weeks size, 1 contractions for 15 seconds in 10 minutes, both fetal heart sounds heard. Per vaginal examination-cervix fully dilated, fully effaced, bulging bag of membranes present and presenting part – foot with station at -1. Bed side ultrasound scan was done which showed dichorionic diamniotic twin gestation, twin A – live intrauterine gestation, 21 weeks gestation, EFW-520 gms, FHR-present, twin B – live intrauterine gestation 20 weeks 2 days gestation, EFW-480 gms, FHR-present. Relavant investigations were sent and reported as follows-hemoglobin -12.7 g/dl, WBC 19,4th/mm^3, platelet count-37th/mm^3, INR-1.12, liver and renal function tests were within normal limits. She had a spontaneous expulsion of abortus of twin A weight 300 gms at 3 pm and twin 2 weight of 420 gms at 3:30 pm on 21 March 2024 placenta and membranes expelled in toto, no postpartum hemorrhage noted. Placenta weight of 240 gms. Twin C expelled with intact sac in toto. Following delivery patient had episodes of fever for which fever profile was sent – dengue, malaria, typhoid was reported as negative. CRP – negative and procalcitonin – 0.345 ng/ml. Urine and blood culture sensitivity was sent and reported to be normal. Repeat CBC was sent and reported as follows - hemoglobin-12.7 g/dl, WBC-7.76th/mm^3, platelet count-29th/mm^3. USG abdomen and pelvis was done on 23/03/2024 and reported as heterogeneously hyperechoic collection with volume of 30 cc noted within endometrial cavity, demonstrating minimal significant vascularity on CDI, borderline splenomegaly. Serial monitoring of platelet was done in view of persistent thrombocytopenia.

Review scan was done on 25 March 2024 with RPOC reduced to 20cc noted in endometrial cavity demonstrating minimal vascularity on CDI. She was symptomatically better and was discharged on post-natal day 10. She came for follow-up visit on post-natal day 20, review scan was done and no RPOC was noted, repeat CBC was done and reported as follows hemoglobin-10.5 g/dl, WBC-6,4th/mm^3, and platelet count-110th/mm^3.

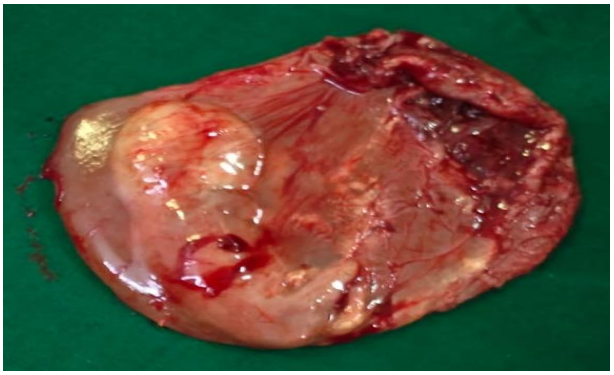

Figure 1: Fetal reduction of twin C.

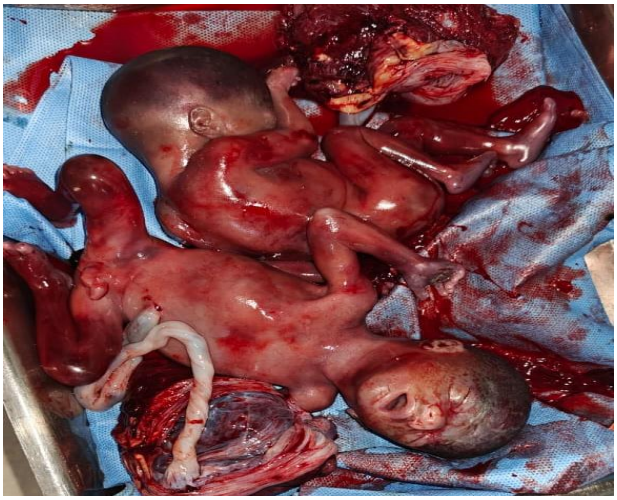

Figure 2: Twin A and twin B after expulsion.

DISCUSSION

Multiple pregnancies are increasing due to developments in birth control services.[4] Multiple pregnancy reduction improves fetal outcomes by reducing the risk of premature birth and other complications.[5] Chorionicity plays an important role in the occurrence of multiple pregnancies. There are reports showing that there is a higher risk of miscarriage and stillbirth in monochorionic and dichorionic triple pregnancies compared to trichorionic pregnancies and other complications such as Twin-to-twin transfusion syndrome, growth inequality, twin anemia polycythemia sequence.[6] The different weights of the fetuses in three cases and the fact that abdominal reduction surgery was performed indicate that the risk of chorion sharing is high and therefore more care should be taken in these cases.[7] In our case, spontaneous labor occurred at gestational age of 21 weeks, that is, before 24 weeks and after thorough assessment of our patient, different measures were not taken to stop labor since patient came in active stage of labour. Some studies have shown retention of placenta, abruptio placentae, and postpartum hemorrhage as maternal complications in delayed interval delivery involving twins and triplets. However, none of these happened in our case.[8]

CONCLUSION

Triplet pregnancies reduced to twin pregnancies had significantly lower risks of adverse pregnancy outcomes, severe preterm deliveries, and low birthweight than nonreduced triplet pregnancies. However, triplet pregnancies reduced to twin pregnancies were potentially associated with a 5.6% increased risk of miscarriage.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Rubagumya D, Kaguta M, Mdachi E, Abeid M, Kidanto H. Spontaneous fetal reduction in triplets and prolongation of twin pregnancy for 111 days as an outpatient: a case report. J Med Case Rep. 2021;15(1):321.
2. Hessami K, Evans MI, Nassr AA, Espinoza J, Donepudi RV, Cortes MS, et al. Fetal reduction of triplet pregnancies to twins vs singletons: a meta-analysis of survival and pregnancy outcome. Am J Obstet Gynecol. 2022;227(3):430-9.
3. Anthoulakis C, Dagklis T, Mamopoulos A. Athanasiadis, Risks of miscarriage or preterm delivery in trichorionic and dichorionic triplet pregnancies with embryo reduction versus expectant management: a systematic review and meta-analysis. Human Reprod. 2017;32:6.
4. Kristensen SE, Kvist Ekelund C, Sandager P, Stener Jørgensen F, Hoseth E, Sperling L, et al. Triple trouble: uncovering the risks and benefits of early fetal reduction in trichorionic triplets in a large national Danish cohort study. Am J Obstet Gynecol. 2023;229(5):555.e1.
5. Liu S, Li G, Wang C, Zhou P, Wei Z, Song B. Pregnancy and obstetric outcomes of dichorionic and trichorionic triamniotic triplet pregnancy with multifetal pregnancy reduction: a retrospective analysis study. BMC Pregnancy Childbirth. 2022;22(1):280.
6. Huang M, Liu XJ, Gong YH. Sichuan da xue xue bao. Yi xue ban J Sichuan Univ. Medical science Edition. 2023;54(2):426-31.
7. Meireson E, De Rycke L, Bijnens EM, Dehaene I, De Bock S, Derom C, et al. Birth outcomes of twins after multifetal pregnancy reduction compared with primary twins. Am J Obstet Gynecol. 2024;6(1):101230.
8. Evans MI, Curtis J, Evans SM, Britt DW, Fetal reduction and twins. Am J Obstet Gynecol. 2022;4(2):100521.

Cite this article as: Rajashekar R, Munisamaiah M. Triple to double trouble: a rare case report of fetal reduction of triplets to twin pregnancy. Int J Reprod Contracept Obstet Gynecol 2024;13:2541-3.