



Conjoined twin with TRAP: A case report

Nafiseh saedi, khadijeh Adabi, Elham shirali and Mona Mohseni

Department of Obstetrics and Gynecology, Yas Hospital, Tehran University of Medical Sciences, Tehran, Iran.

ARTICLE INFO

Article history:

Received: 17 June 2017;

Received in revised form:

2 August 2017;

Accepted: 12 August 2017;

Keywords

TRAP,

Monozygous Pregnancies.

ABSTRACT

TRAP sequence and conjoined twinning are two congenital anomalies specified to monozygous pregnancies. This case report is a unique case of conjoined twins with TRAP sequence that conjoined from mouth of pump fetus A 28 year's old woman was referred due to active phase of labor with an ultrasonography report of conjoined twins (twins were Joined at head and neck), which one was acardia acephalous fetus. At the time of operation delivery because of junction between twins at the site of mouth between pump fetus and TRAP fetus, there was no choice other than separation of twins by manual pressure.

© 2017 Elixir All rights reserved.

Introduction

Twin Reversed Arterial Perfusion (TRAP) sequence and conjoined twinning are two congenital anomalies specified to monozygous pregnancies.

TRAP syndrome is a rare condition with an estimated incidence of 0.3 in 10000 births (1). Which a normal fetus (pump twine) and an acardia fetus (perfused twine) with abnormal consisting of legs and lower body and without upper body.

Conjoined twins occurs at rates ranging from 1 in 30000 to 1 in 100000 births (2).

Prenatal diagnosis of conjoined twins should be suspected whenever a monochorionic- monoamniotic pregnancy is detected by two dimensional ultrasound enhanced by color flow Doppler at 11-14 weeks scan (3).

Surgical separation of conjoined twins is commonly undertaken after birth, in contrast, a TRAP sequence may be treated in utero (1).

This case report is a unique case of conjoined twins with TRAP sequence that conjoined from mouth of pump fetus.

Case report

A 28 years old woman (gravida 2, para 1) with spontaneous twin pregnancy at 30 weeks of gestation was referred to this hospital due to ultrasonography report of conjoined twins (twins were joined at head and neck), which one was acardia acephalous fetus.

At the time of admission, mother had labor pain and because of vaginal exam progression and starting of active phase of labor, mother transferred to the operation room for caesarian section. At the time of operation delivery of twins was so difficult cause of junction between twins at the site of mouth between pump fetus and TRAP fetus. There was no choice other than separation of twins by manual pressure (figure 1,2).

Figure1-alive fetus

Figure2-TRAP fetus

The alive fetus born with Apgar scoring of 4/8 which failed to intubate due to head and neck anomalies, as a result expired after 15 minutes.

In outward investigation, the TRAP one was acephalous Amorphous with separate umbilical cord, and the placenta was hydropic.

Discussion

The incidence of conjoined twins is about 1 in 30000 to 1 in 100000 births (2).

Mothers age, race, parity and inheritance have no effect on incidence of conjoined twins (4).

Conjoined twins are categorized due to location of conjunction. The most common type is called thracoomphalopagus which is about 28 persen of all conjoined twins .Other type of conjoined twins are called cephalopagus, ischiopagus, parapagus, craniopagus, pyopagus and rachiopagus (4, 5).

Congenital anomalies are prevalent between conjoined twins. As an instance heart anomalies are found in 75 percent of thoracopagus twins and liver ios joined between twins in 81 percent of omphalopagus twins (6).

Twin reversal arterial perfusion (TRAP) sequence is a condition that results in monozygotic monochorionic twin pregnancies with a normal pump fetus and a perfused fetus that joined together with one or more vascular communications. The estimated incidence of TRAP is 0.3 in 10000 births (1).

So the incidence of TRAP with conjoined twins is very rare and its management is so difficult, treatment of TRAP is interrupted umbilical circulation between twins in prenatal period, before heart failure develops in pump fetus, however treatment of conjoined twins must be planned on a case-by-case basis the anatomical arrangement of the shared tissues and surgical separation is usually deferred for weeks or months after birth to complete main organs (7).

This case is a unique case of conjoined twin with TRAP sequence, the site of conjunction was mouth of pump fetus and referred to this center at 30 weeks of gestation with starting labor. If the patient has a MRI for characterizing organs of twins, maybe it will be possible to surgery of this conjoined twin before or at the time of caesarian section.

References

1. Kalyani R, Mandeep S, Bindra. Twin reversed arterial perfusion syndrome (TRAP or acardiac twin)-a case report. *Journal of clinical and diagnostic research*.2014; 8(1):166-167.
2. Edmonds LD, Layde PM. Conjoined twins in the united states, 1970-1977. *Teratology* 1982; 25:301-8.
3. Van den Brand SFJJ, Nijhuis JG, van Dongen PWJ. Prenatal ultrasound diagnosis of conjoined twins. *Obstet Gynecol Survey* 1994; 49:656-62.
4. Hanson JW. Incidence of conjoined twinning. *Lancet* 1975; 2:1257.
5. Edmonds LD, Layde PM. Conjoined twins in the United States 1970-1977. *Teratology* 1982; 25:301-8.
6. Romero R, Pilu G, Jeanty P, Ghidini A, Hobbins JC. Prenatal diagnosis of congenital anomalies. East Norwalk, Conn: Appleton&Langer, 1987:405-7.
7. Errol R. Norwitz, Lennox P.J. Hoyte, Kathy J. Jenkins, Mary E. van der Velde, Peter Ratiu, Diana Rodriguez-Thompson, et al. Separation of conjoined twins with the twin reversed arterial perfusion sequence after prenatal planning with three dimensional modeling: brief report. *The new England Journal of Medicine* 2000; 343(6):399-402.