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Case Report

Successful spontaneous fraternal quadruplet delivery rare case report

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ABSTRACT

Quadruplets are set of four off springs born at one birth. Quadruplets occurring more frequently as assisted reproduction technique but spontaneous conception and delivery of 4 male live fetuses are something rare case to be reported.
Improved MCH care in high risk obstetric cases with team work and Obstetric ICU/HDU and NICU.
We report a case of 28 year old multiparous woman presented at around 10 week of amenorrhea with positive pregnancy test. After evaluation she was found to carry 4 live fetuses. She was managed conservatively till 34 week of gestation with regular ANC monitoring. Caesarean section was performed when labour pain was started for obstetrical complications and successful delivery of 4 healthy live male children of 1.75, 1.5, 1.5, 1.2 kg. Entire delivery was possible in Obstetric HDU set up and level 3 NICU setup.
This case is unique due to SPONTANEOUS conception of quadruplet pregnancy with regular ANC checkups and delivery at centre with obstetric ICU back up & team work. We followed this case for entire post natal period and infant age of all Children.

1. Introduction

Spontaneous pregnancies with more than 2 fetuses are very rare.

According to "HELLIN'S "principle 1 in 89 natural pregnancies ends in birth of twins.[1]

1 in 89^2 in triplets and 1 in 89^3 i.e. 704969 in quadruplets in one year.

Though these numbers decreased with various techniques of assisted reproduction, spontaneous conception of 4 live fetuses is very rare.[3]

Dizygotic quadruplets results from fertilizations of four different ova by different sperms during single ovarian cycle.[2]

As compared to singleton pregnancies quadruplets and in particular Dizygotic twins are associated with higher risks of hypertension, incompetent cervix, PROM, placenta previa, abruptio placenta, first trimester bleeding, pre term labour, anemia, still birth and perinatel death.

Management of multiple gestation creates special problems for obstetrician.

Early diagnosis and correct multidisciplinary management with proper ANC care of the patient are essential for successful outcome.

2. Case Report

We report a 28 year old $G_2p_1l_1$ with previous FTND presented with 2.5 months of amenorrhoea.

She is Indian Guajarati female from rural background and Hindu by religion with h/o spontaneous conception.

She was healthy looking female with normal BMI and 114/70 mm of hg BP on her first visit.

She was mild pale with Hb 9.4 gm%. Her antenatal USG revealed live intrauterine quadruplet pregnancies.

Counselling of couple was done at 10^{+3} weeks.

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Negative consent for selective feto-reduction was given by patient and her husband.

Patient was started tab ecosprin 75 mg, folic acid and vaginal micronized progesterone according to protocol.

Mac Donald cervical cerclage was done for os tightening at 14^{+5} weeks after 11-13 weeks normal scan.

Patient was followed throughout antenatal period by regular check up and USG when needed and had been given iron, calcium and folic acid in optimal doses.

Additionaly inj iron sucrose (200 mg) was given every fornightly to prevent and correct anemia after 24 weeks.

Tocolytics and inj hydroxyprogesterone 250 mg IM every weekly were given to prevent pre term labour.

At 30^{+6} weeks she had an episode of pre term labour and was managed conservatively and 2 doses of betamethasone given for fetal lung maturity.

At 34^{+5}she was p/w labour pains with USG s/o first fetus breech presentation.

Mac Donald stich was removed and all preparation done for emg LSCS.

Informed consent of patient was taken for LSCS.

She delivered four live male children weight of 1.75 kg, 1.5 kg, 1.5 kg and 1.25 kg respectively.

Neonatologists had taken care of all live babies.

There was no intra op complication.

But on post op day she developed hypertension and her BP was 186/102.

Medical reference was done immediately and Tab labetelol (100 mg) started according to advice.

BP was found to be normalised and she was kept 1 week in post op ward.

2 out of 4 babies required intensive NICU care and rest started breast feeding

On D7 both mother and 4 live babies were discharged successfully without any complications.

No other complications were noted.

Patient was advised regarding importance of breastfeeding, kangaroo mother care, vaccination schedule and contraceptive advice.

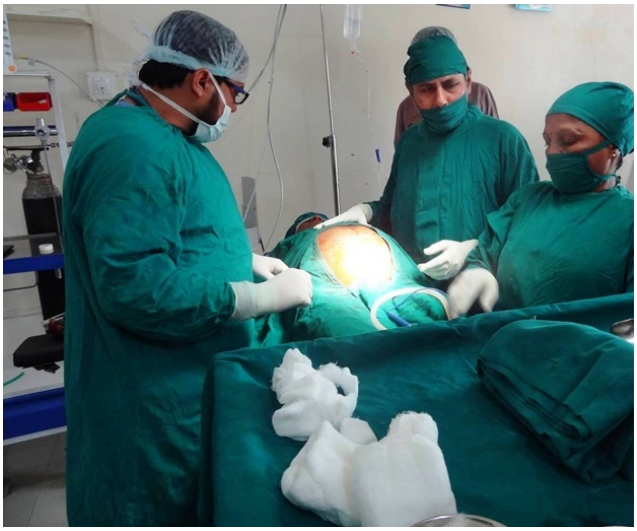

Fig. 1:

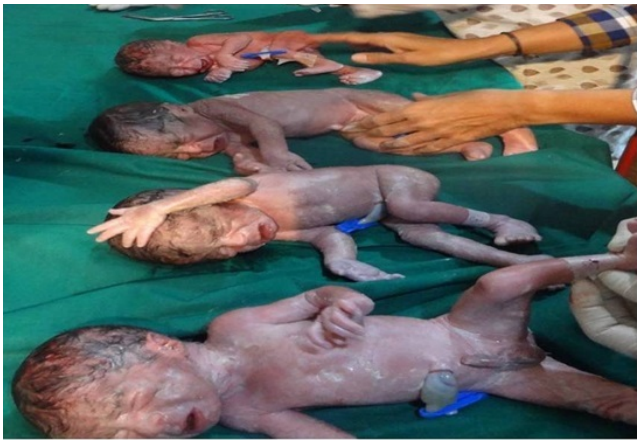

Fig. 2:

3. Discussion

This is rare case of successful quadruplet spontaneous pregnancy.

As a part of our study we performed an internet search of literature from 1980 to 2018 using key word multiple pregnancies, triplets, and quadruplets and we found that the frequency of multiple gestations with more than two foetuses has increased considerably since introduction of methods of ovulation inductions, in vitro fertilisation and embryo transfer. We have analysed the evolution of a spontaneous quadruplet pregnancy.

The diagnosis of live 4 fetuses were made in first trimester.

Management initiated upon diagnosis included bed rest, high protein diet, beta mimetic agents, micronized progesterone, betamethasone in early third trimester, selective circlage and in particular the intensive ultrasonographic controls with biophysical and Doppler parameters in addition of cardiotocogram was important for wellness and survey of foetuses.

Many authors consider that a caesarean section, not just reached a reasonable fetal maturity represents the most suitable formality of birth for the multiple gestation, even if they miss absolute data to the respect.

Gestational age was 34 weeks when we performed caesarean section and pre & perinatal care has been shown to be effective in improving outcomes in this multiple pregnancies.

Maternal mortality and morbidity are greater in quadruplet pregnancy than singleton pregnancy.

The Perinatal mortality and morbidity are also relatively high and mainly due to premature delivery which is seen in more than 90% cases.

4. Conclusion

Multidisciplinary approach should be adopted.

The preferred method of delivery of quadruplet pregnancies is elective caesarean section. This is because of increased risk of fetal malpresentations and difficult intrapartum fetal monitoring associated with the condition.

5. Source of Funding

None.

6. Conflict of Interest

None.

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