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A Study of Fetomaternal Outcome in Case of Twin Gestation Over One Year

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Abstract: ***Background**: The incidence of twinning and higher order gestation has increased dramatically over the last two decades. Globally, in the last two decades, with advances in assisted reproductive technology (ART), older maternal age and widespread use of ovulation inducers, the incidence of twin gestation has witnessed a steep increase. Multiple pregnancies are recognized as high-risk pregnancy, associated with increased incidence of adverse pregnancy outcomes and risk for both maternal and foetal morbidity and mortality. **Methods**: A one year hospital based prospective study involving detailed medical records of patients with twin gestation in a tertiary care centre between 1st January 2023 and 31st December 2023. **Results**: Total twin deliveries during the study period were 352. The incidence of twin gestation during the study period was 3.93%. In present study there were maximum patients - 48% in the category of 25-30 years. While 35% patients were noted in 20-24 year age group, 13% patients in 31-35 year age group and 4% patients in 36-40 year age group. In this study 53% patients were primipara patients. While 47% were multipara. In present study spontaneous conception was seen in 75% cases while amongst ART conceived, 10% were by ovulation induction, 7% each by IVF and IUI and 1% by ICSI. 63% cases of DCDA twins were noted, 31% of MCDA twins and 6% of MCMA twins. In this study 30% patients were of term gestation while 70% were preterm. Complications in this study include 52% cases of anemia, 25% cases of preeclampsia, 37% cases with preterm labor, 18% patients with PROM. Total of 40% patients delivered by caesarean section while 58% patients delivered by normal vaginal delivery. Indications of caesarean section included malpresentations such as breech and transverse lie in 62.5% patients. In this study 82% cases of low birth weight were noted and only 18% cases with normal birth weight. In this study 79% babies required NICU admission. **Conclusion**: The incidence of multifetal pregnancies has markedly risen in recent decades, primarily due to the widespread adoption of assisted reproductive technologies and delayed childbearing age. All mothers with twin pregnancy should be counselled regarding possible complications, as compared to singleton pregnancy. Preterm labor is the leading cause of increased perinatal mortality in twin gestation due to prematurity. Most complications in twin pregnancies can be mitigated through rigorous antenatal and labor protocols, including addressing anaemia, treating infections, managing hypertensive disorders, and preventing/treating postpartum haemorrhage.*

Keywords: Preterm, Preclampsia, Artificial reproductive techniques, malpresentation, Anaemia, Post partum haemorrhage, IUGR

1. Introduction

The incidence of twinning and higher order gestation has increased dramatically over the last two decades. The greatest contributor to this explosion has been delayed fertility, the widespread use of ovulation induction drugs, assisted reproductive technologies and increasing maternal age at child births[1].

It results commonly from the fertilization of two separate ova (dizygotic) and about one third of cases arises from division of one fertilized ovum into two separate embryo (monozygotic).

There is considerable ethnic, racial and geographical variations in the frequency of twin pregnancy. The incidence of twinning and higher order pregnancies has increased over last two decades. Globally, in the last two decades, with advances in assisted reproductive technology (ART), older maternal age and widespread use of ovulation inducers, the incidence of twin gestation has witnessed a steep increase. The prevalence of twin gestation was 43.5 per 1000 deliveries in a tertiary health centre.

Multiple pregnancies are recognized as high-risk pregnancy, associated with increased incidence of adverse pregnancy outcomes and risk for both maternal and foetal morbidity and mortality.

Although twins occur in 1 of 80 pregnancies, they account for 12.2% of preterm births and 15.4% of neonatal deaths[2]. Multiple gestation, having increased placental and fetal mass, is likely to have increased physiological response compared to singleton pregnancies. Well known complications of twin pregnancy include abortion, hyperemesis gravidarum, congenital malformations, anaemia, pregnancy induced hypertension, intrauterine growth restriction, preterm labour, prelabour rupture of membranes and antepartum haemorrhage[6]. Other complications are foetal malpresentation, polyhydramnios, cord prolapse, cord entanglement, urinary tract infection, postpartum haemorrhage, retained second twin and operative vaginal delivery[5].

Prematurity poses the greatest threat to twin, with an associated perinatal mortality rate of 3-8 times more than that of a singleton pregnancy. In addition, the risk of congenital anomalies is about 1.7 times higher than in singleton pregnancies and is more significant in monozygotic pregnancies [2]. There is an increased incidence of use of antenatal corticosteroids for those patients who were at a risk of delivering before 34 weeks of gestation. The rate of perinatal mortality can be up to six times higher in twin compared to singleton pregnancies, largely due to higher rates of preterm delivery and fetal growth restriction seen in twin pregnancies[6,7]. Twins are associated with an

increased risk of prematurity, cerebral palsy, learning disabilities, slow language development, behavioral difficulties, chronic lung disease, developmental delay and perinatal mortality as compared to singletons. birth and birth weight are also significant determinants of morbidity and mortality into infancy and childhood. Monochorionic twin pregnancies have a 3-5 times higher perinatal mortality and morbidity as compared to dichorionic twin pregnancies [3,5].

Discordant twin growth of more than 20-25% may be an important contributor to the adverse perinatal outcomes especially in monochorionic twin pregnancies; however, this may be attributed to the actual weight of each twin (appropriate for gestational age or small for gestational age; AGA or SGA) rather than growth discordance[6,7]. Elective hospitalization for bed rest, prophylactic use of tocolytics and use of cervical cerclage are measures proposed to reduce the high foetal wastage associated with premature labour, but these have not been shown conclusively to be beneficial.

The purpose of this study was to assess the risk factors and fetomaternal outcome in cases of twin pregnancy.

2. Methods

One year hospital based prospective observational study involving detailed medical records of patients who underwent obstetric hysterectomy between 1st January 2023 and 31st December 2023. The study was carried out at obstetrics and gynaecology department, BJ medical College and Civil hospital, Ahmedabad.

Subject Selection

Inclusion Criteria:

- Pregnant women aged≥18 years of age, all twin pregnancies between 28-40 weeks' gestation.
- All twin pregnancies conceived with artificial reproductive techniques will be included.
- All twin pregnancies conceived naturally will be included.
- All antenatal patients attending labor room will be included.

Exclusion Criteria:

- Twin pregnancy with gestational age <28weeks
- Women with chronic medical illness namely diabetes mellitus, chronic obstructive pulmonary disease (COPD), bronchial asthma and coronary artery diseases were excluded from the study.
- Patients with singleton gestation.
- All patients with twin pregnancies who have delivered outside CHA labour room.
- Patients with triplets or quadruplets.
- All unwilling females would be excluded

3. Results

Present study of twin pregnancy was conducted at tertiary care center- BJ Medical college and Civil hospital Ahmedabad, Gujarat prospectively during the period of January 2023 to December 2023.

Table 1: Incidence of twin gestation in present study

Year	Total Deliveries	Total Twin Gestation	Percentage
January 2023 to December 2023	8953	352	3.93%

The total number of deliveries during the study period was 8953. Total twin deliveries during the study period were 352. The incidence of twin gestation during the study period was 3.93%. A total of 100 cases of twin pregnancy were studied randomly and the results were tabulated.

The incidence of twinning and higher order multiple gestation has increased dramatically over the last two decades. The greatest contributor to this explosion has been advanced age, delayed fertility and the use of assisted reproductive technology.

Table 2: Age distribution

Age in years	Number of patients (n=100)	Percentage
20-24	35	35%
25-30	48	48%
31-35	13	13%
36-40	4	4%

In present study there were maximum patients- 48% in the category of 25-30 years. While 35% patients were noted in 20-24 year age group, 13% patients in 31-35 year age group and 4% patients in 36-40 year age group. Increased incidence of multifetal gestation nowadays is due to widespread use of ovulation induction and artificial reproductive technologies in the treatment of infertility and delayed childbearing at a later age by women due to career constraints. However, the maximum incidence of multifetal pregnancy in our study was seen in the age group 25-30years (48%), which is the most common reproductive age group.

Table 3: Parity distribution

Parity	Number of patients (n=100)	Percentage
Primipara	53	53%
Multipara	47	47%

In this study 53% patients were primipara patients. This indicates the widespread use of ART in current scenario. While 47% were multipara. Increasing parity has been shown to increase the incidence of twinning independently in all populations studied.

Table 4: Mode of Conception in present study

Mode of Conception	Number of patients (n=100)	Percentage
Spontaneous	75	75%
Ovulation Induction	10	10%
IVF	7	7%
IUI	7	7%
ICSI	1	1%

In present study spontaneous conception was seen in 75% cases while amongst ART conceived, 10% were by ovulation induction, 7% each by IVF (in vitro fertilization) and IUI (intrauterine insemination) and 1% by ICSI (intracytoplasmic sperm injection).

Table 5: Antenatal Management

Antenatal Management	Number of patients (n=100)	Percentage
Tocolytic	38	38%
Steroids	47	47%
Cervical Cerclage	20	20%

This table shows that antenatally 38% patients were managed by tocolysis, 47% patients required use of steroids for fetal lung maturation and 20% patients underwent cervical cerclage.

In the patients undergoing cervical cerclage, anomaly scan was done to rule out any lethal congenital anomalies in the fetuses. All the patients who underwent cervical cerclage were also given tocolysis. All the patients who were given steroid therapy were also given tocolysis. In the present study tocolysis was given to 38% patients. Some of the patients had preterm delivery and remaining were delivered at term.

Table 6: Type of twins based on chorionicity and amnionicity

Type of twins	Number of patients (n=100)	Percentage
DCDA	63	63%
MCDA	31	31%
MCMA	6	6%

This table shows the distribution of type of twins. 63% cases of DCDA twins were noted, 31% of MCDA twins and 6% of MCMA twins.

Table 7: Period of gestation

Period of gestation	Number of patients (n=100)	Percentage
Very preterm (28-31^{+6} weeks)	9	9%
Moderate preterm (32-33^{+6} wks)	23	23%
Late preterm (34-36^{+6}weeks)	38	28%
Term (>/= 37weeks)	30	40%

This table shows the distribution of period of gestation among twin pregnancies. In this study 30% patients were of term gestation (>/= 37weeks) while 70% were preterm. Of preterm pregnancies 9% belonged to very preterm category, 23% belonged to moderate preterm and 38% to late preterm. This shows that preterm pregnancies often terminate at a preterm gestation than singleton pregnancies.

Table 8: Maternal Complications

Complications	Number of Cases (n=100)	Percentage
Anemia	52	52%
Pre-eclampsia	25	25%
HELLP	2	2%
AKI	1	1%
Eclampsia	1	1%
Preterm Labor	37	37%
PROM	18	18%
APH	4	4%
PPH	2	2%
GDM	1	1%
Hypothyroidism	3	3%

This table shows the maternal complications in case of twin gestation. 52% cases of anemia, 25% cases of preeclampsia, 37% cases with preterm labor, 18% patients with PROM. Other complications that were noted were 2% cases with HELLP syndrome, 1% with AKI, 1% with eclampsia, 4% with APH, 2% with PPH, 1% with GDM, 1% with hyperthyroidism and 3% with hypothyroidism. Multiple complications were noted in all patients.

This suggests that maternal complications are commonly noted in twin gestations than in singleton pregnancies.

Table 9: Anaemia in twin pregnancy

Haemoglobin concentration	Number of patients (n=100)	Percentage
Normal (Hb>/= 11)	40	40%
Mild Anaemia (Hb 10-10.9 g/dl)	14	14%
Moderate Anaemia (Hb- 7-9.9g/dl)	44	44%
Severe Anaemia (Hb- <7g/dl)	2	2%

Anaemia is commonly noted in pregnant patients in India and even more common in twin pregnancies. 40% patients had a normal haemoglobin level. While 44% patients had moderate anaemia with Hb in the range of 7-9.9 g/dl. 14% patients had mild anaemia with Hb in the range of 10-10.9 g/dl. 2% patients had severe anaemia with Hb <7g/dl.

Table 10: Obstetric Outcome

Obstetric Outcome	No. of cases (n=100)	Percentage
Preterm Delivery	70	70%
Term Delivery	30	30%

Obstetric outcome included term delivery in 70% patients and preterm delivery in 30% patients. Preterm labor is a very common complication in twin gestation and it was managed by tocolytics and antenatal steroids. Cervical cerclage was even attempted in this study. Good NICU facilities can help in improving prognosis of preterm neonates.

Table 11: Mode of Delivery

Mode of delivery	Number of patients (n=100)	Percentage
Vaginal delivery	58	58%
CS	40	40%
Instrumental delivery	1	1%
1st vaginal and 2nd LSCS	1	1%

Total of 40% patients delivered by caesarean section while 58% patients delivered by normal vaginal delivery. 1% patients delivered by ventouse application. While in 1 patient, 1st baby was delivered by vaginal mode and 2nd baby was delivered by LSCS due to transverse lie.

Table 12: Indication of CS

Indication of CS	Number of patients (n=40)	Percentage
Malpresentation	25	62.5%
Fetal distress	6	15%
Previous CS	12	30%
Doppler changes/ IUGR	6	15%
Cord presentation/ cord prolapse	3	7.5%
Abnormalities of labor	2	5%

Indications of caesarean section included malpresentations such as breech and transverse lie in 62.5% patients, fetal distress in 15% patients, IUGR in 15% patients, previous CS in 30% patients, abnormalities of labor in 5% patients, cord presentation/cord prolapse in 7.5% patients.

Table 13: Fetal presentations

Presentation	Number of patients (n=100)	Percentage
Cephalic+ Cephalic	54	54%
Breech+ Cephalic	17	17%
Cephalic+ Breech	13	13%
Breech+ Transverse	13	13%
Breech+ Breech	9	9%
Cephalic+ Transverse	1	1%
Transverse+ Breech	1	1%
Transverse+ Transverse	1	1%

Fetal malpresentation is very common in multiple pregnancies. 54% patients presented with both cephalic presentations. Amongst all other malpresentations, 17% were 1st breech and 2nd cephalic, 13% each of cephalic + breech and of Breech + transverse lie, 9% of both breech presentations. Rare malpresentations were noted with 1% each of both transverse lie, cephalic + transverse lie and transverse + breech.

Table 14: Birth weight

Birth weight	Baby 1		Baby 2	
	Number of cases (n=100)	Percentage	Number of cases (n=100)	Percentage
Normal (>/=2.5kg)	18	18%	21	21%
Low Birth weight (1.5-2.4 kg)	59	59%	52	52%
Very low birth weight (1-1.4kg)	20	20%	24	24%
Extremely low birth weight (<1kg)	3	3%	3	3%

In this study 82% cases of low birth weight were noted and only 18% cases with normal birth weight. Amongst low birth weight, 59% lie in 1.5-2.4kg category, 20% in 1-1.4kg category and 3% in <1kg category. Low birth weight becomes the major indication for extensive NICU admission in these patients.

Table 15: NICU Admission

Number of days in NICU	Number of cases (n=100)	Percentage
No NICU admission	21	21%
<5 days	19	19%
5-9 days	20	20%
>/= 10 days	40	40%

In this study 79% babies required NICU admission of which 40% required for >10 days, 20% for 5-9 days and 19% for <5days. In 21% cases NICU admission was not required. Longer NICU stays were a common outcome for twins.

Table 16: Fetal complications and neonatal outcome

Neonatal Outcome	Number of cases (n=100)	Percentage of cases
Low birth weight	82	82%
IUGR	12	12%
IUD	5	5%
Early Neonatal death (NND)	5	5%
Stillbirth (SB)	1	1%
Apgar <7 at 5 min	26	26%
Discharge	89	89%

The fetal complications noted in this study were 82% with low birth weight, 12% with IUGR, 5% were IUD cases, 5% with early neonatal death, 26% with APGAR score of <7 at 5th minute and 1% cases of stillbirth. While 89% babies were discharged healthy with mother. This can be attributed to better neonatal resuscitation facility availability in this tertiary care center.

Table 17: Reasons for NICU Admission

Reasons	No of Cases (n=79)	Percentage of cases
LBW	63	79.7%
Respiratory distress	10	12.6%
Septicemia	3	3.8%
Congenital anomaly	1	1.2%
Jaundice	2	2.5%

This table shows the reasons for NICU admissions which were 79.7% due to LBW, 12.6% due to respiratory distress, 3.8% due to septicemia, 1.2% due to congenital anomaly and 2.5% due to jaundice. Multiple reasons were found for all neonates requiring admission to NICU.

Majority of NICU admission were because of prematurity. Prematurity leads to low birth weight, hyaline membrane disease, hypoglycemia and infection.

Table 18: Causes of neonatal mortality

Causes	Number of cases (n=5)	Percentage of cases
Septicemia	2	40%
Hyaline Membrane Disease	2	40%
Hypoxic Ischemic Encephalopathy	1	20%

40% cases of neonatal mortality were due to septicemia, 40% due to hyaline membrane disease and 20% due to hypoxic ischemic encephalopathy.

4. Discussion

The incidence of twin pregnancy observed in our study was 3.93% which is similar compared to other studies due to increased availability of ART techniques to all socioeconomic classes of people. The incidence was similar in studies by NJ Obiechina et al[14] (3.37%) and in Akaba GO et al[15] (3.25%).

Our study observed that the 25-30 year age group accounted for 48% of twin pregnancies, aligning with findings by Akaba GO et al[15] (39%) and Kumari K et al[11] (50%). This demographic shift is attributed to delayed marriages and increased use of assisted reproductive technologies (ART) due to infertility.

Primigravida patients represented 53% of twin pregnancies in our study, consistent with Kumari K et al[11] (48%) and P Shobha Rani et al[10] (57%). The higher incidence in primigravida women may be linked to increasing infertility rates and ART utilization.

In our cohort, 75% of twins were conceived spontaneously, while 25% resulted from ART: 10% ovulation induction, 7% IVF, 7% IUI, and 1% ICSI. These figures are comparable to Bhakhar H et al[9]'s study, which reported 8% ovulation induction and 3% IVF.

The most common twin type was dichorionic-diamniotic (DCDA), observed in 63% of cases, aligning with Anand N et al[16] (61%).

Preterm delivery was a significant concern, with only 30% delivering at term. Late preterm deliveries (32-36 weeks) accounted for 38%, consistent with Kumari K et al[11] (41%) and Kundariya K et al[8](62%).

Maternal complications included anemia, preterm labor, and pre-eclampsia, consistent with findings from other studies.

Incidence of anemia in present study is 52% which is corelated in other studies: 40% in Rani S et al[10] and 27% in study by Kumari K et al[11]. In twin pregnancy, incidence of anemia increases because of increased iron requirements, physiological decrease in hematocrit levels due to intravascular volume expansion and multiple fetuses. Many of the cases of twin gestation were prescribed adequate iron supplements. Due to illiteracy and lower socioeconomic status leading to lack of knowledge about diet and nutrition, and unavailability of sources most of the patients with anemia remained untreated which can lead to further intrapartum and postpartum maternal complications.

Preeclampsia was noted in 25% cases in present study and in other studies similar findings were found- 28% in study by Rani S et al[10] and 22.5% in study by Kumari K et al[11]. Hypertensive disorders include - pre-eclampsia, eclampsia and HELLP syndrome associated with hypertension during pregnancy. In case of twin pregnancy there are more chances of development of anemia and hypertensive diseases of pregnancy which contribute to further complications during antepartum, intrapartum and postpartum period. In present study HELLP was noted in 2% cases, eclampsia in 1% cases and AKI in 1% cases. While eclampsia was found in 2.8% cases in study by Rani S et al[10] and none in Kumari K et al[11]. Higher incidence of hypertensive disorder in present study is attributed to the fact that this was a referral tertiary care center.

Preterm labor was seen in 37% cases of present study, the patients were given tocolytics, steroids to prevent preterm labor. Some also underwent cervical cerclage. With the use of prophylactic measure for prevention of preterm labor, most of the patients delivered at term. In other studies the incidence was 40% in Rani S et al[10] and 25% in study Kumari K et al[11]. In many emergency cases with preterm labor, tocolysis was given for the aim of covering the steroid dosage duration. Isoxsuprine Hydrochloride was used for tocolysis. Betamethasone was used in attaining lung maturity. Although prophylactic cervical cerclage is advocated by many in case of twin gestation to prevent preterm labor, we do not advocate it for this purpose. With good antenatal and neonatal care in the present era, the obstetric outcome is better compared to previous decades when the facilities of neonatal care and preterm labor management were limited.

The incidence of PROM is comparable between present study (18%) and Kumari K et al[11] (18%). Incidence of APH in present study was 4% while it was 2% and 1.8% in studies by Rani S et al[10] and Kumari K et al[11] respectively. APH included 1 case of placenta previa and 3 cases of abruptio placenta in present study. The increased incidence of placenta previa in twin gestation is due to bigger size of the placenta encroaching on to the lower uterine segment. Increased incidence of placental abruption is seen in twin gestation is due to associated factors like pre-eclampsia and polyhydramnios and overdistension of the uterus. APH was managed well with blood transfusion.

Incidence of PPH 2% in present study while it was not noted in other studies. Incidence of postpartum hemorrhage is almost double in twin gestation as compared to singleton pregnancies as there are more chances of anemia, over distension of uterus, coagulation profile abnormalities, large placenta and more uterine tissue is exposed. Severe postpartum bleeding in twin pregnancy is mostly due to uterine atony. Patient should be kept in strict monitoring postdelivery for 6-8 hours. Incidence of postpartum hemorrhage was 1% which was less as compared to other studies. Both the cases of PPH responded well with uterotonics and blood transfusion.

The incidence of GDM in our study was 1% while it was 2% and 5.6% in studies by Rani S et al[10] and Kumari K et al[11]. Increased incidence of GDM in twin pregnancy was due to larger placental mass and it was managed well by medical nutritional therapy and oral hypoglycemics like metformin.

Incidence of hypothyroidism was 3% in present study while it was 5% in study by Rani S et al[10]. Hyperthyroidism was only seen in 1% in present study while it was not found in other studies.

Incidence of anemia in present study was 60% while it was 41% in study by Kundariya K et al[8]. This could be attributed to several high risk cases being referred here in view of non-availability of blood products and non -availability of facility to manage PPH. The incidence of mild anemia is 14% in present study comparable with 15% in Kundariya K et al[8]. The incidence of moderate and severe anemia was 44% and 2% in present study while it was 20% and 6% in study by Kundariya K et al[8].

In this study 58% patients delivered by normal vaginal route while 40% by caesarean section, 1% by instrumental (ventouse) delivery and 1% by 1st vaginal and 2nd baby by LSCS. This was corresponding with the study by Anand N et al[16] in which 59% delivered by normal vaginal route while 39.7% patients by CS, 1.3 % by instrumental application (owing to prolonged labor) and 1% by 1st vaginal and 2nd baby by LSCS due to transverse lie.

In our study, the primary indications for caesarean section (CS) in twin pregnancies were malpresentations, including breech and transverse lie (62.5%), followed by previous CS (30%), meconium-stained liquor/fetal distress (15%), intrauterine growth restriction (IUGR) (15%), cord prolapse (7.5%), and abnormalities of labor (5%). These findings are consistent with those of Anand N et al[16], who reported 38% malpresentations, 20% previous CS, and 12% fetal distress as major indications for CS in twin pregnancies.

Regarding fetal presentations, our study found that 54% of twin pairs were cephalic-cephalic, 17% were breech-cephalic, and 29% had other combinations. This is in contrast to the study by S. Bhavana et al[13], which reported 66% cephalic-cephalic and 14% breech-breech presentations.

In terms of neonatal outcomes, our study observed that 80.5% of twins had low birth weight (LBW), with 55.5% classified as LBW, 22% as very low birth weight (VLBW), and 3% as extremely low birth weight (ELBW). This is comparable to the findings of Kundariya K et al[8], who reported 91.9% LBW, 65% LBW, 20.7% VLBW, and 5.3% ELBW . The higher incidence of LBW in our study may be attributed to the increased rate of preterm deliveries and IUGR among twins.

Neonatal mortality in our study was 5%, with hyaline membrane disease (HMD) being the most common cause (2%), followed by septicemia (2%) and hypoxic-ischemic encephalopathy (HIE) (1%). These findings are consistent with the study by Bhakhar H et al[9], which reported 5.5% HMD and similar rates of septicemia and HIE . The higher incidence of HMD in our study may be due to the increased number of preterm and VLBW infants, who are at higher risk for respiratory complications

In conclusion, our study highlights the significant impact of malpresentations and previous CS on the mode of delivery in twin pregnancies. The high incidence of LBW and neonatal mortality underscores the need for improved prenatal care and neonatal support to enhance outcomes for twins.

5. Conclusion

The incidence of multifetal pregnancies has markedly risen in recent decades, primarily due to the widespread adoption of assisted reproductive technologies and delayed childbearing age. Strategies aimed at reducing multifetal pregnancies, particularly those involving more than two fetuses, include cancelling ovulation induction cycles deemed high-risk for multiple gestations and restricting the number of embryos transferred during IVF. Early registration and regular antenatal care are essential for all patients to promptly diagnose and manage potential multifetal pregnancies.

All mothers with twin pregnancy should be counseled regarding possible complications, as compared to singleton pregnancy. Therefore, they should be advised to have frequent antenatal visits and report immediately to hospital in the event of any complications.

Preterm labor is the leading cause of increased perinatal mortality in twin gestation due to prematurity. So, all efforts must be taken to attain proper maturity so as to have a better fetal outcome.

Most complications in twin pregnancies can be mitigated through rigorous antenatal and labor protocols, including addressing anemia, treating infections, managing hypertensive disorders, and preventing/treating postpartum hemorrhage. Early admission from 28 weeks for threatened preterm labor helps in preemptive management. Tocolysis is crucial until lung maturity is achieved with steroids, reducing perinatal mortality due to preterm birth. Advanced obstetric and NICU care further enhances outcomes. Despite these advancements, twin gestations remain high-risk and should be managed in tertiary centers with comprehensive neonatal care facilities and skilled personnel.

Abbreviations:

AKI	→	Acute Kidney Injury
APH	→	Ante Partum Hemorrhage
ART	→	Artificial Reproductive Technologies
DIC	→	Disseminated Intravascular Coagulation
DAMC	→	Di Amniotic Mono Chorionic
DADC	→	Di Amniotic Di Chorionic
ECV	→	External Cephalic Version
ELBW	→	Extremely Low Birth Weight
HELLP	→	Hemolysis, Elevated Liver enzymes and Low Platelets
HIE	→	Hypoxic Ischemic Encephalopathy
HMD	→	Hyaline Membrane Disease
hMG	→	Human Menopausal Gonadotropin
ICU	→	Intensive Care Unit
ICSI	→	Intra Cytoplasmic Sperm Injection
IPV	→	Internal Podalic Version
IUFD	→	Intrauterine Fetal Death
IUGR	→	Intrauterine Growth Restriction
IVF	→	In Vitro Fertilization
LBW	→	Low Birth Weight
MAMC	→	Mono Amniotic Mono Chorionic
NICU	→	Neonatal Intensive Care Unit
OI-FET	→	Ovulation Induction- Frozen Embryo Transfer
PPH	→	Postpartum Hemorrhage
PROM	→	Premature Rupture of Membranes
RANC	→	Routine Antenatal Care
TRAP	→	Twin Reversal Arterial Perfusion
TTTS	→	Twin Twin Transfusion Syndrome
VLBW	→	Very Low Birth Weight

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