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**MATERNAL AND NEONATAL COMPLICATIONS IN TWIN PREGNANCIES:
A RETROSPECTIVE ANALYSIS IN GOMEL STATE
CLINICAL HOSPITAL № 3 IN 2023**

Introduction

Twin pregnancy represents around 1–2% of all pregnancies [1]. Its incidence has been rapidly rising in the last decades due to the increase in maternal age at first pregnancy and the constant progress of assisted reproductive technology (ART) techniques [1]. Several previous studies have shown that multiple pregnancy is associated with a higher risk of maternal and neonatal complications compared to singleton pregnancy [2]. The increased risk of preterm delivery, post-partum hemorrhage and hypertensive disorders in twin pregnancy is a well-known issue [2]. Additionally, low birth weight and small-for-gestational-age (SGA) status were reported at higher rates in infants conceived in twin pregnancy than with singleton pregnancy, and these are known risk factors for prenatal mortality and morbidity [3]. It is important to comprehensively investigate the risks involved in twin pregnancy and to clarifying the perinatal consequences of twin pregnancy becomes increasingly helpful in facilitating resource allocation and closer developmental surveillance for infants at risk of dysplasia. Thus, in this study we performed an analysis to determine the severity of maternal and neonatal complications of twin pregnancy in the Gomel state clinical hospital № 3 in 2023.

Goal

This study aims to study about the establishment of maternal and perinatal complications, chorionicity, and outcome of the twin pregnancies managed in Gomel state hospital number 3.

Material and methods of research

Retrospective analysis of the all the case histories was made in the gynecology department of Gomel regional clinical hospital number 3, Belarus. Permission for research was granted by the Gomel state medical university. Medical case histories of 9 female patients aged between 20–35 years were used for this study.

The gathered data was from the month of January to December of 2023. Statistical processing of the results was carried out using the Microsoft Office Excel 2021 program.

The result of the research and discussion

We studied 9 medical case histories of twin pregnancy from the Gomel regional hospital number 3 in the year of 2023, mothers with twin pregnancy were likely to be age around 30 years or older, only 3 patients were aged below 25 years. The maximum number of the hospital stay of patients were around 16 days. Patients were divided into 3 groups by their gestation weeks as 34–35 weeks (n=3), 36–37 weeks (n=2), 37–38 weeks (n=4) as shown in the figure 1.

The rate of caesarean delivery significantly increased in these cases as 77,77% (n=7) mostly as an emergency surgery and the rate of normal delivery as 22,22% (n=2). Gestational age was observed to significantly decrease 55,5% (n=5).

Table 1 – Complications of the pregnancy (Gomel state clinical hospital № 3, 2023)

Complications of the pregnancy	Percentage
Premature rupture of thr membrane	33,33%
Threatening premature birth	66,66%
Anemia	66,66%
Gestational diabetes mellitus	1,11%
Pregnancy induced hypertension	22,22%
Preterm labour	55,55%
Post-partum hemorrhage	11,11%

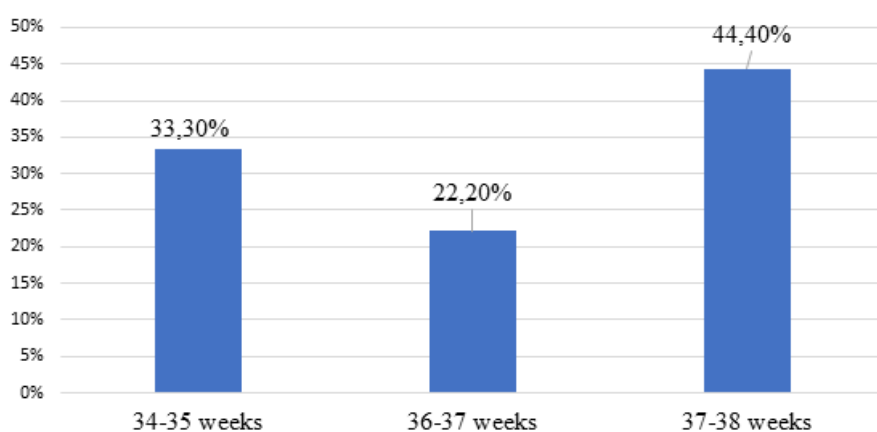


Figure 1 – Patients percentage by gestational weeks

Twin pregnancy was more likely to be associated with PROM (premature rupture of membrane) (n=3), but less likely to be associated with gestational diabetes mellitus (n=1) and hypertensive disorders (n=2). The prevalence of anemia (n=6), preterm labor (n=5) and post-partum hemorrhage (n=1) is shown in the table 1. Other than these we can see some uncommon complications such as chronic placental insufficiency in the stage of compensation (n=2), enlargement of the umbilical cord around the neck (n=3) and some ocular complications such as myopic astigmatism (n=3). Most of them are in the abnormal presentation such as breech and transverse position (n=5) at the time of delivery.

Infants from twin pregnancies had a significantly higher rate of smaller than gestational age (n=6), low birth weight (n=6) than infants from a singleton pregnancy. However, the prevalence of birth injury, congenital malformations, low Apgar score, NICU (Neonatal Intensive Care Unit) admission, respiratory distress syndrome, neonatal sepsis and neonatal death were not seen in these cases.

Conclusion

Our study showed a low rate of twin pregnancies in the Gomel population. Twin pregnancy was significantly association with older maternal age, caesarean delivery preterm labor, gestational diabetes mellitus, hypertensive disorders, smaller than gestational age, low birth weight (< 2500 g) and premature rupture of the membrane, but was not associated with NICU (Neonatal Intensive Care Unit) admission, congenital malformations, and any other neonatal complications. This suggested that in Gomel region twin pregnancy still confers an intrinsic risk of maternal adverse outcome but not very much in neonates. This may due to the increased facility of medical care and timely admission of the patient to the hospital. This study has

limitations that should be noted. We lacked some of the sufficient data and the medical records were obtained only from one hospital, from one year and there were only few cases with twin pregnancy therefore, some information was missing.

This study suggest that the maternal and neonatal outcomes associated with twin pregnancy are significant, and there is an immediate need for efforts to reduce adverse perinatal outcomes. Because primary prevention for the risk associated with twin pregnancy, such as prematurity, hypertension, low birth weight, and smaller than gestational age are often unattainable, mothers with multiple gestations should seek increased obstetric care and be educated on the importance of timely intervention and developmental surveillance for optimal child growth and development.

LITERATURE

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УДК 616.3:61.33

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ANTIBIOTIC SUSCEPTIBILITY OF GONORRHOEA

Introduction

Gonococcal infection is one of the most common sexually transmitted disease, mostly found in females. It has a major problem of economic burden and substantial morbidity. Causative organism is *Neisseria gonorrhoea*. Prevalence rate of gonorrhoea is high due to asymptomatic carriers and antimicrobial resistance towards *N. gonorrhoea* in the community [1, 2].

Antibiotic resistance occurs when bacteria no longer respond to antibiotic medicine. This can be due to human activity, mainly the misuse and overuse of antibiotics to treat, inappropriate prescribing and extensive agricultural use. If one antibiotic get ineffective, finding another one instead of that is not so easy. As a result of this drug resistance, antibiotic has become ineffective to cure common diseases and thus there is a huge spike of infections and become difficult or impossible to treat. It also threatens major medical advances (surgeries, cancer treatment, preterm baby care). This resistance of drugs also leads to increased risk of disease spread, severe illness, disability and death [3].

Usually, gonococcal infection is often not noticed by the patients but also can be present with painful urination, pus like discharge from penis, pain or swelling on testicle in males and vaginal discharge, painful urination, vaginal bleeding between periods, abdominal pain, infertility in females correspondingly. Risk factors which provide to the development of gonococcal infection mainly are sexually active women younger than 25, men who have sex with men and having more than one sex partner [1]. Diagnosis of gonorrhoea can be done by testing urine, discharge specimen using Gram testing, culture tests and swab tests are the procedures [2]. Treatment by antibiotics is the primary care: ceftriaxone, cefazolin, lomefloxacin are the antibiotics used mostly as they are having comparatively less resistance and more sensitivity. Preventive measures are safe sex, limiting sex partners and gonorrhoea screening.