

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.

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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.

Goal

The Aim of this study is to find the effect of antibiotic susceptibility on gonorrhoea in young females and males of reproductive age group, resistance percent of drugs and better preventive measures of gonorrhoea with outcome data.

Material and methods of research

Respective analysis of the case histories of patients who visited Gomel Regional Clinical Dispensary was done. Permission was granted by Gomel State Medical University. This descriptive-analytical study was conducted on 78 patients of age 20 years and above who are being diagnosed for gonococcal infection in the said clinic.

The gathered data was from the month of January to December of 2023. Statistical processing of the result data information was carried out using the Microsoft office excel programme.

The result of the research and discussion

78 patient results were examined in this study in which 75 of the patients were female and 3 of the patients were male. The median age group was 20–25years.

In this study, 24 patients out of 74 (32%) are sensitive to azithromycin, 6 out of 13 (46%) are sensitive to clarithromycin, 17 out of 20 (85%) are sensitive to cefazolin, 15 out of 16 (93,7%) are sensitive to lemfloxacin, 19 out of 22 (86%) are sensitive to amoxiclav, 7 out of 17 (41%) are sensitive to clindamycin, 51 out of 57 (89%) are sensitive to ceftriaxone, 28 out of 40 (70%) are sensitive to ciprofloxacin, 13 out of 41 (31%) are sensitive to erythromycin, 26 out of 45 (57%) are sensitive to doxycycline, 3 out of 16 (18%) are sensitive to ampicillin, 1 out of 1 (100%) is sensitive to levofloxacin, 25 out of 38 (65%) are sensitive to ofloxacin, 6 out of 13 (46%) are sensitive to trimethoprim, 5 out of 20 (25%) are sensitive to penicillin G. Third generation cephalosporin (ceftriaxone, cefazolin), lemfloxacin, levofloxacin, amoxiclav shows better sensitivity compared to other antibiotics.

And similarly, 40 patients out of 74 (54%) are resistant to azithromycin, 3 out of 13 (23%) are resistant to clarithromycin, 3 out of 20 (15%) are resistant to cefazolin, 0 out of 16 (0%) resistant to lemfloxacin, 3 out of 22 (13%) are resistant to amoxiclav, 5 out of 17 (29%) are resistant to clindamycin, 4 out of 57 (7%) are resistant to ceftriaxone, 6 out of 40 (15%) are resistant to ciprofloxacin, 21 out of 41 (51%) are resistant to erythromycin, 15 out of 45 (33,3%) are resistant to doxycycline, 12 out of 16 (75%) are resistant to ampicillin, 0 out of 1 (0%) are resistant to levofloxacin, 10 out of 38 (26%) are resistant to ofloxacin, 6 out of 13 (46 %) are resistant to trimethoprim, 11 out of 20 (55%) are resistant to penicillin G. Beta-lactam group (penicillin ampicillin), macrolide group (erythromycin, azithromycin, clarithromycin) shows most resistivity.

Conclusion

Based on the data collected from the clinic about antibiotic resistance and its concluded that mostly females of young age group are affected and regarding antimicrobial/ antibiotic susceptibility, we observed that moderate to high resistance are observed in azithromycin, clarithromycin, erythromycin, doxycycline. Penicillin and ampicillin are of no use in the treatment of gonorrhoea as they show maximum resistance in this collected data of population. Comparatively we can use antibiotic groups that are more susceptible to gonorrhoea which are lomefloxacin, ceftriaxone, levofloxacin, amoxiclav, cefazolin. As we can find from this, it is necessary to monitor continuously the drug susceptibility of N. gonorrhoea in the specific regions to understand the resistant trend of the corresponding drugs.

Preventive measures for antibiotic resistance is the suggestion of disc diffusion method (fast screening method) that is more easy and effective and can be used to monitor routinely antibiotic susceptibility in gonorrhoea. Doctors should consider on the treatment based on individual

susceptibility pattern rather than routine empirical treatment. Even nowadays third generation cephalosporin are getting resistance, so use drugs cautiously. Possibly main complication of gonorrhoea is infertility in both men and women. So the mainstay for non-specific prevention is safe sex, avoid multiple partners and men to men sex [1]. Treatment and diagnostic procedures should be well monitored and under surveillance.

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IMPACT OF PCOS-RELATED MENSTRUAL IRREGULARITIES ON FERTILITY AND REPRODUCTIVE HEALTH IN INDIAN WOMEN

Introduction

Polycystic Ovary Syndrome (PCOS) is a common hormonal and metabolism issues among women of reproductive age that can lead to various health challenges, including menstrual irregularities and infertility [1]. Polycystic ovary syndrome (PCOS) is a complex endocrine disorder that affects approximately 25–30% of women of reproductive age worldwide. In India, the prevalence of PCOS is reported to be even higher, with estimates ranging from 9% to 36% depending on the diagnostic criteria used. PCOS is characterized by a combination of symptoms, including menstrual irregularities, hyperandrogenism, and polycystic ovaries on ultrasound.

PCOS-associated with menstrual irregularities are disruptions in the normal menstrual cycle that can include infrequent or prolonged periods, as well as the absence of ovulation, leading to difficulties in conceiving. In the context of Indian women, where there is significant stigma associated with reproductive health, PCOS and its impact on fertility present considerable challenges. This is coupled with the fact that India has a high prevalence rate of PCOS, with numerous studies suggesting it affects approximately 22–26% of women of reproductive age [2]. From the period from 2020 till now according to hospital's data, the cases of PCOS have increased over the time. The average age of patients was 30±10 years (25–40 years). In Indian women, PCOS-related menstrual irregularities, driven by hormonal imbalances, can lead to anovulation and irregular ovulation patterns, reducing the chances of conception.

Goals

To know how PCOS-related menstrual irregularities affect fertility in Indian women and to explore the broader implications of PCOS-related menstrual irregularities on reproductive health. Examining the impact of cultural and social factors on the experiences of Indian women with PCOS-related menstrual irregularities.