

ORIGINAL ARTICLE

Assessment of Obstetrics and Gynaecological referred Cases and their Outcomes to Isra Tertiary Care HospitalSarwat Memon^{*}, Ambreen Amna, Amber Arain, Fauzia Rahim**ABSTRACT**

Objective: To assess, the type of obstetrics and gynaecological cases referred to tertiary care hospitals.

Study Design: Descriptive cross-sectional study.

Place and Duration of Study: The study was carried out at the Department of Obstetrics and Gynecology Unit 2 of Isra University Hospital Hyderabad, Pakistan from May 2022 to July 2022.

Materials and Methods: The patients who were referred to the Department of Obstetrics and Gynaecology Unit 2 at Isra University Hospital during the study duration from various primary, secondary, tertiary, and private hospitals for any obstetric or gynaecological emergency were the primary source of data. The confidentiality of each patient was carefully respected. This study evaluated the prevalence of various obstetric and gynaecological conditions for which patients were usually referred to Isra University Hospital within the study duration as well as the management options provided to these patients.

Results: The bulk of referrals (71%) were for gynaecological cases, according to the results of our study. Patients under 20 years of age comprised 31% of the total. The majority of patients (20%) were multipara and in their third trimester (18%). Vesicovaginal fistula (VVF) was the most common gynaecological reason for referral (27%) and the least were ectopic pregnancy and UV prolapse 9% each. Placenta previa (13%), was the most common obstetric referral in our study and at least 2% were placental abruption, preterm labour, and pre-eclampsia. Furthermore, 24% of VVF patients were successfully managed transvaginal while only 4% were managed transabdominal. All gynaecological malignancies were treated with total abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy. Laparotomies were done for ectopic pregnancies and 5 patients of UV Prolapse underwent vaginal hysterectomy whereas only 1 had pessary insertion. Amongst obstetric cases 7% cases of placenta previa/accreta had Cesarean section, 4% had Cesarean section along with bladder repair and 2% of cases necessitated myometrial excision. Compression sutures were the most frequently used form of treatment (5%) for postpartum hemorrhage patients, followed by hysterectomy (4%) and medical management (2%). Preterm labour was monitored, whereas placental abruption and pre-eclampsia required caesarean procedures.

Conclusion: The majority of patients both gynaecological and obstetric referred to Isra Tertiary Care Hospital throughout a 3 months period had either an urgent need for treatment or a serious condition that necessitated a specialist's expertise and the availability of the appropriate resources. Therefore, it can be concluded that there is a critical need to upgrade our health system infrastructure, particularly in the area of maternal and child health care, in order to make it simple to provide timely and appropriate management to a variety of health conditions and lower the likelihood of any mishaps involving the mother or the fetus. Additionally, this will also benefit patients by avoiding unnecessary travel from distant regions and helps reduce the burden on tertiary care health system.

Keywords: *Gynaecology, Obstetrics, Outcomes, Referrals.*

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Correspondence:*Dr. Sarwat Memon**Assistant Professor, Obstetrics and Gynecology**Isra University Hospital Hyderabad, Pakistan**E-mail: dr.sarwat.memon@gmail.com**Funding Source: NIL; Conflict of Interest: NIL**Received: Aug 12, 2022; Revised: Sep 07, 2022**Accepted: Oct 11, 2022***Introduction**

Early diagnosis, treatment implementation, and timely referrals are critical components of any maternal health intervention's success. As a result, all state health functionaries must be equipped with the information and skills necessary for the early detection of problems and treatment commencement.

Each year, 514,000 women die as a result of obstetric problems alone.¹ Maternal morbidity and mortality continue to be a major concern for global health systems, and it is a key emphasis for international development, as evidenced by the Sustainable Development Goals.²

Emergency obstetric care (EmOC) encompasses all aspects of obstetric care, including professional personnel, equipment, and support services, that are required for the management of difficulties during pregnancy, delivery, and the postpartum period.³

Furthermore, if high-quality emergency obstetric care were available 24 hours a day, seven days a week at all maternal and child care facilities, nearly all of these lives could be saved, and complications such as haemorrhage, obstructed labour, infection (sepsis), unsafe abortions, and eclampsia, which account for the majority of these deaths, could be avoided.⁴

The availability of EmOC is seen to be a good measure of a health system's readiness to deal with situations that cause acute maternal morbidity and mortality.^{5,6,7}

More research has found that when it comes to trained professionals, deliveries performed by untrained birth attendants have a 4.67 times greater death rate than those performed by senior delivery attendants. According to recent statistics, 529,000 women die each year in pregnancy and childbirth around the world. Increased maternal and fetal morbidity and mortality rates are linked to factors such as poor antenatal care, medical facilities, family taboos, low socioeconomic position, lack of roads,

and transportation facilities, and fear of surgeries. It has also been established that poor countries account for 99 percent of all maternal mortality worldwide.⁸

Other than obstetric complications, Abnormal vaginal bleeding, pelvic pain, or a mix of the two are also common gynaecological emergencies, and they're commonly linked to early pregnancy issues. It has been observed in the literature that Women with these symptoms have usually attended to their general practitioner (GP) or a hospital emergency room (ED), where they are assessed and referred to an on-call gynaecologist after an initial assessment with or without a pelvic examination.⁹

Timeliness and appropriateness of referral are important factors in the ultimate outcome of the patients. Linking the primary, secondary and tertiary levels of care is an essential element of primary health care.¹⁰

In light of the foregoing literature, and view of the importance of both maternal and foetal health, as well as the risks associated with other gynaecological problems or postoperative complications, this study aimed to assess the types of obstetrics/gynecological cases and patients with postoperative complications referred to Isra University tertiary care hospital, as well as the clinical outcome following timely management of these patients.

Materials and Methods

This descriptive cross-sectional study was carried out at the Department of Obstetrics and Gynecology Unit 2 of Isra University Hospital from May 2022 to July 2022. The data of patients who were referred to the Department of Obstetrics and Gynecology Unit 2 at Isra University Hospital during the study duration from various primary, secondary, tertiary, and private hospitals for any obstetric or gynaecological emergency were collected from records of the department using non-probability convenience sampling technique after getting approval from ethical review board of University purely for research purpose. The confidentiality of each patient was carefully respected. This study evaluated the prevalence of various obstetric and gynaecological conditions for which patients were usually referred to Isra University Hospital within the study duration as well as the management options provided to these patients. Frequency was calculated for

qualitative variables using SPSS version 17.

Results

In the current study, gynaecological cases accounted for the majority of cases 39 (71%) compared to obstetrics 16 (29%) (Figure 1).

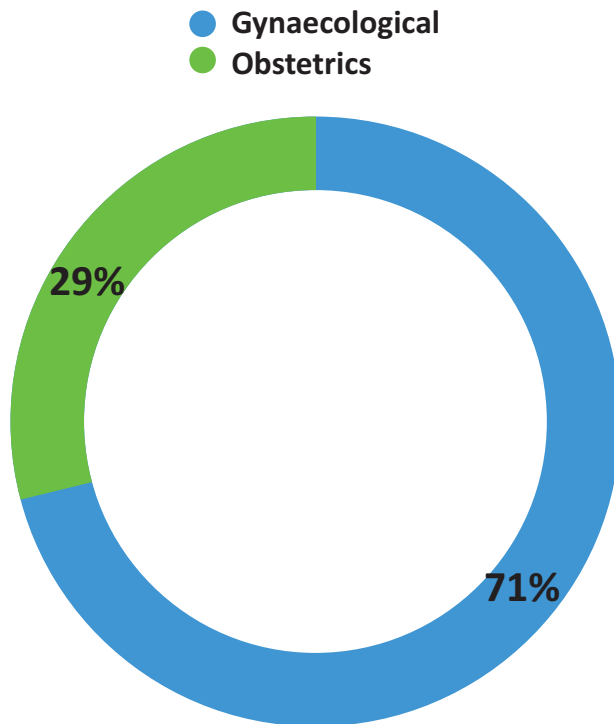


Fig 1: Prevalence of Gynaecological And Obstetric Cases

Most of the patients (51%) were between the ages of 21 and 30 years, followed by those who were under 20 years old (31%), and only 18% were beyond the age of 31. A total 71% of our patients were unemployed and 78% belonged to rural areas. (Table 1).

Variable	Category	Count (Percentage)
Age	Upto 20 Years	17 (31%)
	21-30 Years	28 (51%)
	31 Years onwards	10 (18%)
Profession	Employed	16 (29%)
	Unemployed	39 (71%)
Residence	Urban	12 (22%)
	Rural	43 (78%)

The majority of obstetric patients (20%) were multipara and in their third trimester. (Table 2).

The most frequent gynaecological referral was VVF (27%) followed by a 4th-degree perineal tear (14%). Malignancies accounted for 11%. Placenta previa

Table 2: Obstetric Characteristics N (%)

Characteristic	Count	Percentage
Parity	Multipara	11 (20%)
	Primivara	05 (09%)
Gestational Age	1 st Trimester	02 (04%)
	2 nd Trimester	04 (07%)
	3 rd Trimester	10 (18%)

(13%), followed by PPH (11%), was the most frequent diagnosis among obstetric referrals. Only 2% of cases were referred due to placental abruption, preterm labour, and pre-eclampsia each. (Table 3).

Table 3: Reasons for Referral N (%)

Obstetrics Condition	Count (Percentage)	Gynaecological Condition	Count (Percentage)
Placenta Previa/Accreta	7 (13%)	Vesicovaginal Fistula (VVF)	15 (27%)
Postpartum Hemorrhage	6 (11%)	4th Degree Perineal Tear	8 (14%)
Abruption of Placenta	1 (2%)	Malignancies	6 (11%)
Pre-Term Labor	1 (2%)	Ectopic Pregnancy	5 (9%)
Pre Eclampsia	1 (2%)	Uterovaginal Prolapse	5 (9%)

A multitude of management options were given for placenta previa/ accrete patients including Cesarean section in 7%, Cesarean section along with bladder repair in 4% and 2 % cases required myometrial resection.

Compression sutures were used most frequently (5%) for PPH, followed by hysterectomy (4%), and medical management in only 2% of instances. Pre-eclampsia and placental abruptions were managed via cesarean section however, preterm labour was kept under observation. (Table 4).

24% of VVF patients (vesicovaginal 20% and cervicovaginal 4%) were successfully managed using the transvaginal approach, while 4% were via transabdominal method. In addition, all cases of 4th-degree perineal tears (14%) were repaired and 11% of patients of different gynaecological cancers required total abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy.

Table 4: Management Options for Obstetric Conditions

Obstetric Conditions N (%)	Management N (%)		
	Caesarean Section	C/S with Blader Repair	Myometrial Resection
Placenta Previa /Accreta 7 (13%)	4 (7%)	2 (4%)	1 (2%)
Post-Partum Hemorrhage 6 (11%)	Compression Suture 3 (5%)	Hysterectomy 2 (4%)	Medical Management 1 (2%)
Abruption of Placenta 1 (2%)	Caesarean Section 1 (2%)	-	-
Pre-Term Labor 1 (2%)	Observation 1 (2%)	-	-
Pre-Eclampsia 1 (2%)	Caesarean Section 1 (2%)	-	-

All ectopic pregnancies were treated with laparotomies. Only 1 (2%) of the 5 UV Prolapse patients underwent pessary insertion, whereas 4 (7%) underwent a vaginal hysterectomy. (Table 5).

Table 5: Management Options for Gynaecological Conditions

Gynaecological Condition 39 (71%)	Management		
	Vesicovaginal Repair	Cervicovaginal Repair	Uterovaginal Repair
Vesicovaginal Fistula (VVF) 15 (27%)	11 (20%)	2 (4%)	2 (4%)
4 th Degree Perineal Tear 8 (14%)	Repair 8 (14%)	-	-
Malignancies 6 (11%)	Total Abdominal Hysterectomy with Omentectomy 6 (11%)	-	-
Ectopic Pregnancy 5 (9%)	Laparotomy 5 (9%)	-	-
UV Prolapse 5 (9%)	Pessary Insertion 1 (2%)	Vaginal Hysterectomy 4 (7%)	-

Discussion

Most of the patients in this study (51%) were between the ages of 21 and 30 years, which is the prime reproductive age similar to data of Fornier P, Goswami P, and Pratibha P.^{11,12,13} 71% of our patients were primarily unemployed which is again comparable to the results of to Pratibha P(96.8%).¹³ Our data also reveals that 78% of the population belonged to rural areas. However, Maskey et al¹⁴ reported 67% of referrals arrived from urban areas, while Rathi et al¹⁵ found no significant differences between patients from urban and rural areas. According to our findings, there could be a connection between unemployment and the low literacy rate, particularly in rural areas. (Table 1). Most of our obstetric patients (20%) were multipara, which was contrary to the findings of other research by Gupta PR,¹⁶ (52.17%), Goswami P,¹² and Pratibha P.¹³ However, the majority of our patients were in their third trimester, similar to Pratibha P (Table 2). Gynaecological cases comprised the bulk of referrals in our study (71% vs. 29% for obstetric cases). The most frequent gynaecological referral was VVF (27%) followed by a 4th-degree perineal tear (14%). Malignancies constituted 11% of the total. Placenta previa (13%), followed by PPH (11%), were the most frequent obstetric referrals. Only 2% of cases were due to placental abruption, preterm labour, and pre-eclampsia combined. Verma D and Patel RV reported the majority of obstetric referrals, which is in contrast to our findings.^{17,18} Their most frequent obstetric diagnoses were obstructed labour (22.8%) and distressed neonates requiring an ICU facility (23.7%), while malignancies (ovarian & cervical) 52.5%¹⁷ and menorrhagia (50%) were identified as the most prevalent gynaecological referral.¹⁸ Another study also reported a maximum referral of obstetric cases at 76.3% in which premature rupture of membranes was to most common cause 36% where as pre-term labour, placenta previa and pre-eclampsia was evident in only 13%, 10% and 1% cases respectively (TABLE 3).¹⁹ It was found that the bulk of referral was from the primary and secondary sectors, where there were either inadequately trained staff members or inadequate facilities. Additionally, it was also anticipated that many referrals, such as VVF, are primarily the result of medical malpractice brought on by unskilled doctors,

untrained staff members, or untrained dais, as well as an inability to provide timely treatments or appropriate referrals.

In our study, 7% of placenta previa/ Accreta cases required caesarean section only, 4% C/s with bladder repair and 2% of cases required myometrial resection. Similar to our findings, Alhubaishi F²⁰ found that a simple caesarean section was the most popular therapeutic strategy (59.7%) for Placenta previa, whereas only 5.1% of patients underwent a hysterectomy. Jauniaux E²¹ reported caesarean hysterectomy as the primary management approach in 70% of patients, in contrast to four other studies which reported hysterectomy prevalence in 50% of cases.^{22,23,24,25} The effectiveness of prenatal diagnosis, local surgical skill, and more recently, access to a centre of excellence with a multidisciplinary team approach, all influence the overall management strategies and outcomes of placenta Previa/Accreta. The most frequent management provided in our study for postpartum hemorrhage was compression suture (5%) followed by hysterectomy (4%) and medical management was given to 2% of cases. On the other hand, Bangal V²⁶ reported that surgical intervention by B-Lynch compression suture or stepwise devascularization, including internal iliac ligation, was performed only in 5 cases and obstetric hysterectomy was performed in 20 cases. 46.55% of the cases were successfully managed by medical treatment followed by uterine ballon tamponade in 31.89%. Pre-premature labour, pre-eclampsia and placental abruption accounted for just 2% of our study, so we were unable to compare our findings to previous research. (Table 4).

Surgical repair transvaginal (vesicovaginal & cervicovaginal) is considered to have greater outcomes in the management of VVF. In our study, 24% of VVF patients underwent successful transvaginal management (vesicovaginal 20% and cervicovaginal 4%, respectively), while 4% had effective transabdominal management. Shafqat T et al²⁷ reported transvaginal repair was performed in 26 (68.42%) instances and transabdominal repair in 12 (31.57%) cases, which is consistent with our findings. However, A study done in Turkey by Tatar et al²⁸ found that the transvaginal approach were performed in 25% of cases and transabdominal in 65% of cases. All 4th-degree perineal tears were

healed, and patients referred with gynaecological malignancies were treated with total abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy.

According to our data, a laparotomy was performed to manage all patients 5 (9%) of ectopic pregnancy. On the other hand, Shreshtha J and Rachna S²⁹ reported 20 (62.5%) underwent laparotomy and the remaining 12 (37.5%) underwent laparoscopic surgery. According to Cohen A et al,³⁰ 48 patients underwent emergency laparoscopies while 12 had emergency laparotomies.

Additionally, it was noted that only 1 (2%) of the 5 UV Prolapse patients received pessary insertion while 4 (7%) got a vaginal hysterectomy. Wang et al³¹ observed that 68% of patients received surgical correction whereas 33% opted for pessary implantation, which is consistent with our findings. Contrary to this, Lamers et al³² observed that the likelihood of opting for pessary correction as opposed to surgical correction is mostly associated with the increased age of patients. However, Bodner-Adler B³³ observed that the distribution of pessary and surgery was fairly balanced, with 51% of cases opting for a vaginal pessary and 49% opting for a surgical correction. It is possible to speculate that the management strategy mostly depends on the patient's advanced age, the POP-advanced Q's stage, and—most importantly—the role of counselling (Table 5).

Conclusion

The majority of patients both gynaecological and obstetric referred to Isra Tertiary Care Hospital throughout a 3 month period had either an urgent need for treatment or a serious condition that necessitated a specialist's expertise and the availability of the appropriate resources. Therefore, it can be concluded that there is a critical need to upgrade our health system infrastructure, particularly in the area of maternal and child health care, in order to make it simple to provide timely and appropriate management to a variety of health conditions and lower the likelihood of any mishaps involving the mother or the fetus. Additionally, this will also benefit patients by avoiding unnecessary travel from distant regions and helps reduce the burden on the tertiary care health system.

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