Research Article

Nature and Degree of Severity of Consultations in Gynecological Emergencies

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Abstract

Objective: To improve the management of gynecological emergencies by assessing disease severity, patient profiles, symptoms, outcomes, and treatment effectiveness, helping medical staff prioritize urgent cases efficiently.

Methods: This is a prospective descriptive study of the gynecological emergencies of the Mongi Slim hospital, Tunisia, from July 1 to July 21, 2023. We have defined the reality of the emergency as the main endpoint and classified the women into three groups: "real" emergencies, "legitimate" emergencies, and "false" emergencies.

Results: We included 179 patients. The average age of the consultants was 32 years old. They had no gynecological follow-up (83.8%) and consulted the emergency room on their initiative (88.8%). They consulted most often for abdominopelvic pain (41.9%) and bleeding (28%). Pelvic ultrasound was almost always performed (87.7%), as well as plasma βHCG assay (45.3%). The patients were hospitalized in 14.5% of cases, readmitted to central emergency departments in 20.1%, and sent home in 65.4%. Ultimately, we found that only 11.1% of the emergency room consultants presented a real gynecological emergency.

Conclusions: Better organization of primary care, improved university training in gynecology for future family physicians, and better information for the population must be encouraged so as not to encumber the gynecological emergency departments unnecessarily.

Keywords: emergencies, diagnosis, treatment, gynecology, ultrasound.

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INTRODUCTION

Most obstetric and gynecological emergency services occur daily[1]. Gynecological emergencies often experience congestion due to patients whose conditions do not meet the true definition of urgency within medical settings [2,3]. This situation adds to the workload of healthcare providers who must simultaneously manage the labour ward and obstetric emergencies. Despite their significance, these emergencies have received limited attention in the literature. Some authors have attempted to address this challenge by establishing priority criteria, such as pain intensity, for managing life-threatening emergencies1 Others have proposed a telephone triage system to efficiently direct patients [2]. Specific teams have opted to defer the examination of patients without life-threatening symptoms, with no observed increase in mortality rates [4]. Our study's primary objective was to assess the type and severity of pathologies encountered, along with patients' profiles, symptoms, and outcomes. The secondary objective was to evaluate the management of patients in our emergency department.

METHODS

This prospective, descriptive, single-center longitudinal study focused on gynecological emergencies. It was conducted at the

Gynecological Emergency Department of the Obstetrics and Gynecology Service, Mongi Slim University Hospital in La Marsa, a Level 2b maternity facility offering obstetric services, prenatal diagnostics, gynecological surgery, urogynecology, and oncological care.

The study spanned three weeks, from July 1 to July 21, 2023. It included all non-pregnant women and those with pregnancies up to 20 weeks of gestation who presented to the emergency department during this period.

Outcome Criteria

The primary outcome of our study was the urgency of the condition. We categorized women into three groups; True emergencies: Women requiring immediate care without delay or immediate hospitalization after emergency consultation. In the literature, these include ectopic pregnancy, hemorrhagic miscarriage, complicated ovarian cysts (hemorrhage or torsion), and genital infectious pathologies 1-4. Legitimate emergencies: Women presenting one or more symptoms that may alarm them and lead them to seek medical attention but do not require immediate intervention. False emergencies: All other women were classified into the false emergency group.

Study Procedure

The questionnaire was available in our department's emergency area throughout the study. It was completed in the presence of the patients. Data collection was anonymous. Healthcare providers were asked to complete the questionnaire after concluding patient care to avoid influencing or suggesting medical management and examinations.

Statistical Analysis

Statistical analysis was performed using SPSS 23 (Chicago, Inc). Descriptive statistics were used to summarize data: means were calculated, and ranges (minimum and maximum values) were determined for quantitative variables. Percentages were calculated for qualitative variables. To compare two groups with a quantitative variable, we utilized analysis of variance (ANOVA). To compare the mean of two groups of samples, we used the student's t-test.

RESULTS

The average age of patients in our study was 32 years. 91.6% of patients did not have regular gynecological follow-up. In 83.8% of cases, it was their first visit to the emergency department. Patients sought care at our facility on their initiative in 88.8% of cases. Among them, 90 patients were pregnant (50.3%). Abdominal-pelvic pain and vaginal bleeding were the primary reasons for seeking care in 125 patients (69.9%).

Pelvic ultrasound was the most commonly prescribed diagnostic test, performed in 157 patients, representing 87.7% of cases. Pathological findings were noted in 23 patients, accounting for 14.6% of ultrasound examinations. Qualitative testing of beta-human chorionic gonadotropin (βHCG) was conducted in 45.3% of cases. No gynecological cause or pathology was found in 44 patients (24.6%). The most frequently diagnosed condition (25 cases, 27.9% of cases) was benign first-trimester vaginal bleeding. Dysmenorrhea followed by urinary tract infections were the most common non-pregnancy-related causes identified. One hundred seventeen patients (65.4%) were discharged home after their emergency department visit. Twenty-six patients required hospitalization, representing 14.5% of patients seen during the study period. Eleven hospitalized patients underwent surgical treatment (42.4%), while fifteen received medical treatment (57.6%).

The researcher illustrates the distribution of patients in our study according to the urgency of their visit. We identified 20 "true" emergencies, accounting for 11.1% of patients, including 7 cases of ectopic pregnancy (3.9%) and 3 cases of complicated ovarian cysts (1.7%). Four patients experienced hemorrhagic miscarriages (1.1%). "Legitimate" emergencies accounted for 37.9% of cases (68 patients), primarily first-trimester vaginal bleeding, while 50.9% of emergency visits (92 patients) were related to false emergencies.

Most patients (58.1%) visited our emergency department from 2 PM to 8 AM. The average waiting time was 100.74 minutes. Increased waiting times were mainly due to obstetric priority (11.2%) and insufficient examination rooms (8.4%).

During weekdays, morning consultations significantly increased waiting times, with a significant difference between morning sessions and the rest of the day ($F = 14.111$, $df = 120$, $p = 0$). However, there was no significant difference

between morning and other times during weekends. Necessary examination equipment was not readily available for 64 patients, accounting for 45.8% of cases.

We identified 111 patients exhibiting stress and dissatisfaction, representing 62% of cases. Conversely, 67 patients were satisfied with the waiting time (37.4% of cases). Among satisfied patients, the average waiting time was 69.55 minutes. Additionally, 63 patients were satisfied with the provided care (35.2% of cases).

DISCUSSION

Our study included 179 female patients, with an average age of 32. Most had no previous gynecological follow-up (83.8%) and visited the emergency department voluntarily (88.8%). The most common reasons for consultation were abdominal-pelvic pain (41.9%) and vaginal bleeding (28%). Pelvic ultrasound was performed in almost all cases (87.7%), along with plasma beta-human chorionic gonadotropin (βHCG) testing (45.3%). Hospitalization was required in 14.5% of cases, referral to central emergency services in 20.1%, and discharge home in 65.4%. Ultimately, only 11.1% of emergency department patients presented with true gynecological emergencies.

The prospective and single-center nature of our study imposed methodological limitations. Unlike inpatient services, emergency department patient records are not as comprehensive, leading to challenges in data collection, hence our choice of a prospective study design. We believed conducting a field study was more appropriate for this investigation, as it allowed for estimating parameters such as average waiting time and patient satisfaction, providing a more dynamic scope to our study. This study was conducted at the Mongi Slim University Hospital in La Marsa and may not represent all gynecological emergency services in Tunisia. Our study may have underestimated the Evaluation of true emergencies due to a lack of information on excluded patients (e.g., those who left without being seen or signed against medical advice).

Despite these limitations, our study enabled us to collect rich and targeted data, track patient outcomes, and gather information not always available in standard medical records, highlighting the strengths of our investigation.

Several studies conducted on General Emergency Departments have shown that patients presenting with non-urgent conditions are typically young [5,6], socioeconomically disadvantaged, and have lower educational attainment [6,7], often holding low-skilled jobs (69%) as observed [5,8]. This population typically has lower rates of regular medical follow-up compared to the general population [8]. Despite socio-economic differences across various studies, the reasons for presentation to the emergency department remain relatively consistent regardless of the country or region. For instance, found abdominal-pelvic pain and vaginal bleeding in 81.4% of cases, 71% of cases [1,2]. In our study, abdominal-pelvic pain and vaginal bleeding were observed in 69.9% of cases. Pelvic ultrasound was the most commonly performed diagnostic test in our emergency department, with a frequency of 87.7% in our study. Plasma beta-human chorionic gonadotropin (βHCG) testing was the second most common test, performed in 45.3% of cases, aligning with findings in the literature. Conducted ultrasounds in 82% of cases and βHCG testing in 34% of cases [1]. Hospitalized patients accounted for 14.5% of all patients in our study, while 65.5% were discharged home. These results are consistent with findings in the literature; for example. Elevent point seven percent (11.7%) of patients were hospitalized, and 88.3% were discharged home [1]. We found true emergencies in 11.1% of cases in this study, consistent with the findings who also reported 11% true emergencies [1]. We demonstrated that the average waiting time during weekdays was 108 minutes. An average waiting time of 84 minutes [1], found an average waiting time of 149 minutes in general emergency departments [9]. Our study revealed that satisfaction with waiting time was 37.4%, and satisfaction with the quality of care was 35.2%. As supported by existing literature [9-11], organization is a crucial factor affecting waiting times. It's important to note that besides the quality of care, patients are more dissatisfied when waiting times are prolonged, as affirmed in other studies [10-12]. Additionally, 62% of patients experienced stress. This delicate situation stems from multifactorial dysfunction within the hospital, leading to overwhelmed emergency departments incapable of providing expected services [13-16], resulting in patient dissatisfaction. This, among other factors, explains the deterioration of the doctor-patient relationship, rendering patients more demanding and resistant to information. Our work demonstrated that over half of gynecological emergency consultations lacked

urgency and mainly involved benign pathologies or no pathology. These non-urgent consultations overcrowd emergency departments, overburden medical and paramedical staff, consume time that could be allocated to true emergencies, and exhaust healthcare workers, leading to fatigue and decreased concentration when needed. To break this cycle, action must be taken on two fronts: Firstly, improving information dissemination through public awareness campaigns on primary care, especially on disadvantaged populations 2. Secondly, the doctor-patient relationship, and more broadly, the "healthcare system"-patient relationship, can be enhanced by implementing public health policies that promote regular follow-up by primary care physicians 1,2. This could not only address gynecological-obstetric emergencies but also emergencies across all specialties.

CONCLUSION

Our study found that more than half of gynaecological emergency consultations were classified as non-urgent, involving either benign conditions or no pathology. True emergencies, such as ectopic pregnancies, haemorrhagic miscarriages, and complicated ovarian cysts, accounted for a small proportion of cases. The predominance of false and legitimate emergencies leads to overcrowding in emergency departments, placing significant strain on medical and paramedical staff. This situation diverts critical resources away from patients in genuine need of urgent care, contributing to fatigue and decreased efficiency among healthcare workers.

To mitigate this issue, a dual approach is necessary. First, public awareness campaigns should be implemented to educate patients on the appropriate use of emergency services and the importance of primary care consultations. Second, a public health policy promoting regular gynecological follow-up with primary care providers is essential to reduce reliance on emergency services for non-urgent conditions.

What is already known about this topic?

Gynecological emergencies are often overcrowded with consultants who do not relate to the real emergency as defined in a medical environment. Some authors have tried to find solutions for managing gyneco-obstetrical emergencies. Our emergencies have never been investigated, and therefore, no solution has been proposed.

What does this study add?

This is the first Tunisian study on gyneco-obstetrical emergencies. This is the first study to assess the type and degree of seriousness of the pathologies encountered. This is the first study to assess the care of consultants in our emergency rooms.We tried to find solutions about our conditions and based on international ideas.

DECLARATION OF INTEREST STATEMENT

We affirm that we have upheld ethics and ensured the anonymity of the women in our data usage. We declare no conflicts of interest.

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