Acil Servisten Kadın Hastalıkları ve Doğum Kliniğine Yapılan Konsültasyonların Değerlendirilmesi
Evaluation of Consultations from the Emergency Department to Obstetrics and Gynecology

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ÖZ
Bu çalışmada, Acil servisten (AS) kadın hastalıkları ve doğum kliniğine konulan hastaların data analizi ve konsültasyonların sonuçlarını ve gerekliliği araştırılması amaçlanmıştır.

YÖNTEM: Ocak 2019 ve Haziran 2020 tarihleri arasında AS’den kadın hastalıkları ve doğum kliniğine konulan hastaların data analizi ve konsültasyonların sonuçlarını ve gerekliliği araştırılması amaçlanmıştır.

BULGULAR: Hastaların %17.9’u jinekolojik nedenlere ve %82.1’i obstetrisk nedenlere bağlı olarak konsültasyon edildiği saptandı. En sık obstetrisk konsültasyon nedenleri doğum ağrısı (%25.50) ve pelvik ağrısı (%20.51). Hastaların %14,7’sinin doğum yaptı, %4,6’sına ise acil cerrahi müdahale yapıldığı saptadık. AS’den konsültasyon edilen hastaların %30,6’sına kadın hastalıkları ve doğum poliklinik kontrollü oldu. Hastaların %15’inde ise kadın hastalıkları ve doğum ile ilgili patoloji saptanmıştı.

TARTIŞMA: Konsültasyonlar AS işleyişinden çok önemlidir bir yere sahiptir. Konsültasyon istemi yapılırken hassas ve oldukça seçici olmak gerekir. Uzman hekim yetişirilen kurumlarda eğitim programlarının düzenlenmesi ve konsültasyon işleyişinin klinikler arası toplantılarla düzenlenmesi gereksiz konsültasyonları önleyebilir.

Anahtar Kelimeler: Acil servis, kadın hastalıkları ve doğum, konsültasyon, hasta

INTRODUCTION:
Emergency departments (ED) are special units of hospitals that provide healthcare at all hours of the day. It is difficult to diagnose every patient who is admitted to the EDs due to the variety of them. Therefore, patients may require very different treatments and interventions or be hospitalized in clinics. For this reason, cooperation between clinics, that is, consultations, is required for diagnosis and treatment in a significant portion of the ED patients (1,2). Consultation and multidisciplinary approach are crucial for accurate diagnosis and treatment in the EDs (1).
The most common reasons for women admitted to the ED other than pregnancy are acute pelvic pain and vaginal bleeding. These findings are nonspecific and may include a wide range of gynecological and obstetric causes (3). On the other hand, pregnant women are admitted to the EDs not only for obstetric problems (decrease in fetal movements and/or heart rate, bleeding, premature rupture of membranes, etc.) but also for non-obstetric reasons (acute abdomen, motor vehicle accidents, etc.) (4). Morbidity and mortality should be minimized by making the differential diagnosis accurately and taking referral and hospitalization decisions in a timely manner in gynecological and obstetric patients who are admitted to the ED.

Due to the high number of cases in the field of gynecology and obstetrics and having a special patient population and frequent emergency surgical interventions, consultations are requested from the EDs intensively. Specific symptoms and findings of syndromes that require surgical intervention may be masked due to anatomical and physiological changes during pregnancy. The limited use of imaging methods due to the fetus makes the management of pregnant cases challenging. Emergency physicians need consultation more often because of not being knowledgeable about pregnant patient management and medico-legal concerns. We did not find any study investigating and examining consultation requests between ED, and gynecology and obstetrics in the literature. The present study analyzed the reasons for consultation from the ED to gynecology and obstetrics clinic, characteristics of patients, pre-consultation findings, and following medical and surgical treatments. We also tried to point out the necessity of these consultations.

**METHODS**

This retrospective study was conducted in the Obstetrics and Gynecology clinic of our hospital between January 2019 and June 2020. Local ethics committee approval was obtained for the study (Ethics committee number: 2020/13-30). Female patients who are admitted to the ED and consulted to Gynecology and Obstetrics clinic were included in the study. The first application and consultation were taken into consideration in repeated applications and consultations. Consultations from other inpatient departments and outpatient clinics, the complete records of which could not be accessed, were excluded from the study.

The study population was determined using the electronic medical database of the obstetrics clinic. The patients’ age, complaints at the time of admission to the ED, initial diagnoses, comorbidities, obstetric characteristics and gestational weeks of pregnant women, reasons for consultation, surgical operations performed, radiological and laboratory tests, outcomes in the ED (discharge, hospitalization, exitus, referral) were recorded.

**Statistical Analysis**

Statistical analysis of study data was performed using SPSS version 15.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics for continuous variables, mean ± standard deviation, interquartile range (IQR), and categorical variables were expressed as numbers and percentages. Kolmogorov-Smirnov test was used to ensure compliance with normal distribution.

**RESULTS**

A total of 2685 patients were included in the study. The mean age of the patients was 26.4±5.7. 17.9% of the patients were consulted for gynecological reasons and 82.1% for obstetric reasons. 25.1% of the patients consulted were hospitalized (Table 1).

When the reasons for consultation were investigated, the most common reason due to obstetric reasons was labor pain with 25.50% (n=562). The second most common reason was
pelvic pain with 20.51%. We found that the most common reason for consultation due to gynecological reasons was abdominal pain with 35.76% (n=172). The reasons for requesting consultation from the ED are presented in Table 2.

18.5% of the patients were diagnosed as delivery and 6.7% were diagnosed with ovarian cyst (Table 3). When the results of consultations from the ED were examined, Obstetrics and Gynecology polyclinic control was recommended for most of them (n=823). We found that 14.7% of the patients gave birth and 4.6% had emergency surgery. No Obstetrics and Gynecology pathology was found in 15% of the patients, and consultation was referred to other clinics (Table 4).

**DISCUSSION**

The role of the EDs, which are units where all kinds of emergency cases are treated, in emergency healthcare is crucial. In recent years, there has been a significant increase in the number of patients being admitted to the ED. This situation causes excessive number of patients and complicates the work of emergency units. In the EDs, patients should be diagnosed quickly and accurately and the necessary treatment should be planned immediately. Consultation procedures are one of the most important parts of this process. Given the developments in medicine, the number of specialty areas is increasing day by day. Therefore, the diagnosis and treatment of a patient will inevitably be related to multiple areas of specialty. It is significant to define obstetric risks at the earliest stage in pregnant women and make appropriate interventions. In addition, when pregnant women are admitted to the ED, maternal and fetal well-being must be evaluated and a systematic and effective approach is required to determine whether there are obstetric complications (5). Therefore, it is important to spare sufficient time for the patients in the EDs. Detailed physical examination and necessary radiological and laboratory tests must be performed by emergency physicians before the consultation.

The present study found that 30.6% of the patients consulted from the ED were referred to gynecology and obstetrics outpatient clinic. No pathology was found in terms of gynecology and birth in 15% of the patients, and consultation was recommended to other clinics. Emergency surgical intervention was performed in 4.6% of the patients. This study found out that the majority of the patients consulted were outpatients who were not in an emergency situation and needed to be admitted to polyclinics. Both the low rate of emergency surgical intervention and the low rate of hospitalization for medical treatment show that frequent and excessive consultations are requested to the gynecology and obstetrics clinic from the ED. This not only increases the number of patients in the gynecology and obstetrics clinic but also prevents patients in need of emergency healthcare from receiving treatment in a timely fashion. We predict that the detailed evaluation of the cases by the emergency specialist before the consultation and the cooperation of the emergency physician and the consultant physician will reduce the rate of excessive consultations.

Making use of the EDs in an inappropriate way has always been a significant problem. Most patients try to use the EDs inappropriately as they do not want to wait in line in polyclinics and gain easy access to specialist physicians with consultation. Many studies have been conducted on the inappropriate use of the EDs (6,7). This inappropriate use of the EDs causes loss of time and focus in employees. This creates an obstacle for serious situations that require more time and attention. Studies examining consultations from the ED reported that 62% of the patients consulted to the general surgery clinic, 17% of the patients to the otorhinolaryngology clinic, and
42% of the patients to the thoracic surgery clinic were unnecessary consultations that did not require urgent surgical intervention (8-10). The present study determined that 14.71% of the consulted patients had emergency delivery, 2.81% emergent operation, and 3.8% had emergency caesarean section. In addition, 5.25% of them had elective operation and 45.7% of them consisted of non-urgent admissions. An important problem related to the excessive number of consultations is the approach adopted by health professionals. The reason for the high rate of obstetric consultations in our study may be the inadequacy of emergency physicians in the management of pregnant patients or their medico-legal concerns. In addition, a good triage system should be implemented in order to avoid unnecessary consultations.

Although the concept of obstetric triage is an old-fashioned definition in the literature, it has not been sufficiently developed in our country. Obstetric triage refers to identifying obstetric risks at the earliest stage and performing appropriate interventions in order to maintain maternal and fetal health (11). To this end, it is important to know obstetric triage and to administer it systematically (4,12). It is necessary to determine the profiles of women and pregnant patients for whom consultation is requested in the EDs, and possible problems related to consultations and how the consultation system works should be resolved by holding regular meetings between clinics. In addition, unnecessary consultations, loss of time and workload on both parties can be reduced by organizing training programs in institutions that train specialist physicians.

There are some limitations to this study. First of all, the retrospective nature of the study limited the data to those that are routinely collected. The exclusion of patients with incomplete data on obstetric or gynecological outcomes in women who received consultation was another important limitation. Our retrospective study design may relate to selection bias since it only includes patients consulted from the EDs. Second, this was a single-center study. Further studies involving multiple centers are needed to validate our results.

CONCLUSION

A good triage system should be implemented in the management of pregnant and female patients admitted to the ED. In this way, the identification of the risks that may occur at the earliest stage and the appropriate interventions are made possible. Consultations process have a crucial place in the ED. Organizing training programs in institutions that train specialist physicians and organizing the consultation process with inter-clinic meetings can prevent unnecessary consultations.

Ethics Committee Approval: This study protocol was approved by Clinical Research Ethical Committee of Aksaray University Faculty of Medicine with a protocol number of 2020/13-30 and conducted in accordance with the Declaration of Helsinki and Good Clinical Practices.

Informed Consent: Written consent was obtained from the participants.

Conflict of Interest: Authors declared no conflict of interest.

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Ethical Approve: This study protocol was approved by Clinical Research Ethical Committee of Aksaray University Faculty of Medicine with a protocol number of 2020/13-30.

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Table 1. Demographic characteristics of the study population

| Variable                        | Number (%) (n=2685) |
|---------------------------------|---------------------|
| Age (years)                     | 26.4±5.7            |
| Gynecological consultations     | 481(17.9%)          |
| Obstetrical consultations       | 2204(82.1%)         |
| Hospitalization                 | 676(25.1%)          |
| Transfer to another hospital    | 24(0.8%)            |

Table 2. Reasons for Obstetrics and Gynaecology consultations

| Obstetrics                          | Number (%) | Gynecology                        | Number (%) |
|-------------------------------------|------------|-----------------------------------|------------|
| Nausea and vomiting                 | 181(8.21%) | Abdominal pain                    | 172(35.76%)|
| Abdominal pain                      | 294(13.36%)| Vaginal bleeding                  | 103(21.41%)|
| Pelvic pain                         | 452(20.51%)| Pelvic pain                       | 134(27.86%)|
| Amniotic fluid leakage              | 132(5.99%) | Postcoital bleeding               | 10(2.08%)  |
| Labor pain                          | 562(25.50%)| Vaginal discharge                 | 8(1.66%)   |
| Reduced fetal movements             | 151(6.85%) | Episiotomy complications          |            |
| Vaginal bleeding                    | 235(10.66%)| Episiotomy dehiscence             | 5(1.04%)   |
| Pregnancy and traffic accident      | 13(0.59%)  | Wound site infection              | 4(0.83%)   |
| Hypertension in pregnancy           | 15(0.68%)  | Wound site hemorrhage             | 2(0.42%)   |
| Pregnancy and falling               | 37(1.68%)  | Postoperative complications       |            |
| Pregnancy and intoxication          | 2(0.09%)   | Postoperative wound infection     | 4(0.83%)   |
| Domestic violence                   | 10(0.45%)  | Postoperative wound dehiscence    | 3(0.62%)   |
| Sexual assault                      | 4(0.18%)   | Sexual assault                    | 7(1.46%)   |
| Other                               | 116(5.26%) | Other                             | 29(6.03%)  |
Table 3. Diagnosis and outcomes after the consultation

| Diagnosis / Outcomes                  | Number (%)          |
|--------------------------------------|---------------------|
| Delivery                             | 497 (18.51%)        |
| Premature rupture of membranes       | 86 (3.20%)          |
| Myoma uteri                          | 93 (3.46%)          |
| Pelvic inflammatory disease          | 12 (0.45%)          |
| Hyperemesis gravidarum               | 168 (6.26%)         |
| Abnormal uterine bleeding            | 87 (3.24%)          |
| Urinary tract infection              | 156 (5.81%)         |
| Preeclampsia/Eclampsia               | 12 (0.45%)          |
| Ectopic pregnancy                    | 11 (0.41%)          |
| Placenta previa                      | 8 (0.30%)           |
| Complet/incomplet abortion           | 75 (2.79%)          |
| Dysmenorrhea                         | 14 (0.52%)          |
| Ovarian cyst                         | 182 (6.78%)         |
| Ovarian cyst rupture                 | 35 (1.30%)          |
| Ovarian cyst torsion                 | 12 (0.45%)          |
| Tubo-ovarian abscesses               | 2 (0.07%)           |

Table 4. Decision and suggestions after Obstetrics and Gynaecology consultation

| Result of the consultation                      | Number (%)          |
|------------------------------------------------|---------------------|
| Emergent operation                             | 22 (2.81%)          |
| Elective operation                             | 141 (5.25%)         |
| Emergency delivery                             | 395 (14.71%)        |
| Emergency caesarean section                    | 102 (3.80%)         |
| Obstetrics and Gynaecology outpatient clinic follow-up | 823 (30.65%)        |
| Hospitalization for medical treatment          | 676 (25.18%)        |
| Intervention under local anesthesia            | 97 (3.61%)          |
| Consultation to other clinics                  | 405 (15.08%)        |
| Referral to advanced healthcare                | 24 (0.89%)          |