Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Gynecology-Obstetrics

Extrauterine Pregnancy in the Obstetric Gynecology Department of Fousseyni Daou Hospital in Kayes

Dembele S[1*], Diassana M[1], Macalou B[1], Sidibe A[2], Hamidou A[2], Sinayoko Y[1], Traore S.O[3], Sima M[4], Sylla C[5], Kane F[6], Traore S[7]

[1]Gynecology-obstetrics Department of the Fousseyni Daou Hospital in Kayes
[2]Kayes Referral Health Center
[3]Referral Health center in Commune V in Bamako District
[4]Department of Gynecology-obstetrics of the Chu Point « G »
[5]Department of Gynecology-obstetrics of the Chu Gabriel Toure
[6]BLA Reference Health Center
[7]Gynecology-obstetrics department of SIKASSO Hospital

DOI: 10.36347/sjams.2021.v09i06.009 | **Received:** 22.04.2021 | **Accepted:** 03.06.2021 | **Published:** 06.06.2021

***Corresponding author:** Dembele S

Abstract **Original Research Article**

Introduction: Extrauterine pregnancy is ectopic implantation and the development of the egg outside the uterine cavity, most often a tubal level (98%). The aim was to study ectopic pregnancy in the obstetric gynecology department of the FOUSSEYNI DAOU hospital in KAYES. ***Materials and methods*:** This was a descriptive cross-sectional study with prospective data collection from July 1, 2017 to June 30, 2018. It had focused on all cases of ectopic pregnancy diagnosed and taken in the department. All cases of ectopic pregnancy were excluded from this study, the management of which was carried out in another structure or admitted to the department a post opérative complication. ***Results*:** The frequency of ectopic pregnancy in the ward was 1.12% .The 20-35 age group was the most affected with a frequency of 7.1%. The diagnosis was made in front of a hemoperitoneum picture in 97.6% of cases. The treatment was surgical in 100% of cases. Transfusion was performed in 23.8%. The localization was tubal in 85.8% of cases. No case of death was observed. ***Conclusion:*** Ectopic pregnancy is a public health problem in kayes with an increase in its frequency mainly affecting young women.

Keywords: Pregnancy, Extrauterine, Hospital, Kayes.

INTRODUCTION

Extrauterine pregnancy (GEU) refers to the nesting and development of the egg outside the uterine cavity [1]. It is a serious condition because it is still the leading cause of maternal mortality in the first trimester of pregnancy and significantly compromises subsequent fertility [2]. Its incidence varies between 1 and 2% of pregnancies [3]. In the developing world, the incidence of GEU is higher, reaching 4% in some regions [4]. Early diagnosis of GEU has become possible through the combination of different factors including knowledge of risk factors, the development of the quantitative dosage of plasma HCG on the one hand, and ultrasound, with in particular vaginal probes, on the other [5]. The different anatomical parts of the tube may be affected: the bulb (75%), the isthm (20%), the infundibulum (3%). However GEU can also be ovarian, this in 1% of cases. Abdominal GEUs are very rare, less than 1% of cases, they can be implanted on any site of the abdominal cavity. They are often highly vascularized and potentially dangerous. Transplanted after a tubo-abdominal abortion the abnormal GEUs are rare, less than 1%. These include cervical pregnancies, diverticular pregnancies for adenomyosis, angular or corneal pregnancies in malformed uteruses (also found in healthy uteruses) with rudimentary horn. They are often purveyors of uterine rupture with a life-threatening prognosis. In sub-Saharan Africa, despite these diagnostic methods, EGUs are often discovered in the advanced forms responsible for life-threatening hemorrhagic phenomena. In recent years, much progress has been made in improving the management and prognosis of GEU. Thus medical treatment and conservative cœlioscopic surgery allow, in early forms, to improve the overall holding and subsequent fertility [6]. Delay in diagnosis leads in the majority of cases to laparotomy in the face of advanced forms of GEU [3]. On the basis of this finding, it can be said from the

outset that in developing countries is the treatment of GEU from the outset by laparotomy in view of the delay in diagnosis and the inadequacy of the technical plateau? This work carried out at the FOUSSEYNI regional hospital in KAYES of MALI (developing country) aims to identify the epidemiological profile and to assess the management of geU with the aim of contributing to the reduction of its morbidity and mortality.

MATERIALS AND METHODS

We conducted a descriptive cross-sectional study with prospective data collection in the obstetric gynecology department of the FOUSSEYNI DAOU DE KAYES regional hospital (Level II hospital) from July 1, 2017 to June 30, 2018. 3741 pregnant women admitted to the ward for complication during pregnancy or childbirth constituted our study population. The study looked at all cases of GEU diagnosed and managed in the service. As a sample of our study, we selected all patients admitted for GEU confirmed by the biological pregnancy test (-HCG urinary or plasma "qualitative") and/or ultrasound, sometimes associated with culdocentesis or transparietal puncture. Excluded from this study were all cases of GEU whose management was carried out in another structure or admitted to the ward for a post-operative complication. The data were collected from the admissions register, medical record, operating report registry, anesthesia registry and hospitalization registry. The variables analyzed were: the frequency of GEUs, epidemiological variables (age, parity, risk factors), para-clinical assessment of HCG, ultrasound for diagnosis confirmation, therapeutic management and evolution. The data entry was done on Microsoft Word 10 and analyzed on Microsoft Excel 10, IBM SPSS 20 software. Ethically, informed consent and confidentiality have been respected.

Some terms used

Hemorrhagic shock is an acute circulatory failure following major and lasting blood sapoliation. During the management, the opening of the abdominal cavity made it possible to achieve according to the surgical discoveries:

Salpingectomy: which is the removal of the tube;

Salpingotoe: which is the opening of the tube oophorectomy: which is the removal of the ovary - tubal expression: which consists of exerting pressure at the tube to expel the design product through the pavilion.

RESULTS

During the study period, we collected 42 cases of ectopic pregnancies (GEUs) out of a total of 3741 deliveries performed in the service, representing a frequency of 1.12%. The 20-35 age group was the most affected with a frequency of 90.5%. The average age was 26 years and the extreme ages were 15 and 40 years. Married women were the most represented with a frequency of 98%. In our 81% of GEU cases were housewives, 3% were students. Patients had 2 to 3 sexual partners in 47.6% of cases and more than 4 partners in 28.6% of cases. In 62% of cases of GEU had come on their own, 38% of cases were discharged and 8 cases of GEU had a surgical history of which 7.1% had a history of GEU, 7.1% had a history of caesarean section and 4.8% had a history of tubalplasty. Paucigestes were the most represented with a frequency of 47.6% followed by multigestes with a frequency of 31%. We found that 45.2% of GEU cases were paucipares, 23.8% were primiparous and the average parity was 2. Of the 42 cases of GEU 19 patients (45.3%) had a history of abortion, 36 patients (85.7%) had a history of vulvo-vaginitis and 6 (14.3%) had a history of annexitis. We have 12 CASEs of GEU (28.6%) had a history of contraception, 5 of which (11.9%) were on micro-progestin-based oral contraception and 7 (16.7%) used an intrauterine device. The notion of infertility was found in 15 patients (36%) 5 cases (12%) 10 cases (24%) secondary infertility. 64.3% of THE cases of GEU had a gestational age of 4 weeks of amenorrhea, 26, 2% had a gestational age of 8 weeks of amenorrhea, 2.4% had a gestational age of 5 weeks of amenorrhea and 7.1% had a gestational age of 8 weeks of amenorrhea. GEU was discovered urgently in front of a hemoperitoine table in 97.6% of cases and in 2.4% of cases on ultrasound.

Table-I: Patient Distribution by Functional Signs

Functional signs	Effective	%
Spontaneous abdominal pain	41	97,6
Abdominal-pelvic pain + Amenorrhea + Metrorragia	39	92,8
Abdominal-pelvic pain + Amenorrhea	41	97,6
Abdominal-pelvic pain + Metrorragia	39	92,8
Abdominal-pelvic pain + Lipothymia or syncope	6	14,3
Sympathetic Signs of Pregnancy + Abdominal-Pelvic Pain	29	69

We observed that 23.8% of the cases of GEUs had a hemorrhagic shock, 97.6% had an ombilical cry, 95.6% of the cases had a cry at the douglas cul-de-sac, 24% had a sensitive lateral-uterine mass. Urinary HCG beta was positive in 97.6% of cases. Urinary beta HCG and culdocentesis were positive in 81.1% of cases. Transparietal puncture and urinary and positive beta HCG in 71.4% of cases. Urinary HCG beta and pelvic

ultrasound confirmed the diagnosis of GEU in 88.1% of patients.

Table-II: The Breakdown of Parturients by Ultrasound Results

Characteristics of pelvic ultrasound	Results	Effective	%
Pelvic echography	Ovular bag with cardiac activity	3	7,14
	Latero-uterine image	1	2,4
	No suspicious image	0	0
	EPANCHEMENT PRESENCE IN THE DOUGLAS	28	66,66

Table-III: Patient Distribution by Surgical Treatment

Surgical techniques	effective	%
Total salpingectomies	34	81
Partial salpingectomy	0	0
Annexectomie	4	9,5
Salpingotomie	1	2,4
Tubo-abdominal expression	0	0
Abdominal Pregnancy Extraction	3	7,1
Total	42	100

GEU was tubal in 36 patients (85.8%), abdominal in 3 patients (7.1%) ovarian in 3 patients (7.1%).

Table-IV: The distribution of parturients by per-operative diagnosis

Diagnosis per operative	Effective	%
Broken tubal GEU	33	78,6
Complete or ongoing tubo-abdominal abortion	2	4,8
Hematosalpinx	2	4,8
Hematocele retro-uterine	1	2,4

Controlal tube was macroscopically normal in 88.1% of cases. No cases of maternal death have been observed.

Table-V: The distribution of parturients by obstetric prognosis

Obstetric prognosis	Effective	%
good	34	81
reserved	5	11,9
dark	3	7,1

In our series 2 patients (4.76%) had returned with pregnancy after surgical treatment. In our context we were unable to do any medical treatment during this study. The surgical parts had been sent to anatomopathology for histological confirmation in 60% of the cases.

DISCUSSION

The incidence of ectopic pregnancy is variously spread across the globe. For example, in developed countries, its current incidence is 100 to 175 GEU per 100,000 women aged 15 to 44 per year. This corresponds to a ratio of 2 GEU to 100 births [7]. In developing countries, especially in sub-Saharan Africa, the incidence of GEU is between 0.5 and 3.5% according to Bruno (8) in Cameroon, Meyé JF [9]. In Gabon, Akaba [10] in Nigeria, Nayama [11] in Niger and Sy [12] in Guinea. Our rate of 1.12% is lower than those reported through literature in Africa. In our country in Mali the authors report 1.89%, 2, 65% and 2.87% respectively by DEMBELE Y [13], CISSE H [14] and SOUMARE M [15]. The average age of the patients was 26 years, it was identical to those of BAMOUNI YA [16], MOUNANGA M [17], RATINAHIRANA S [18] and DEMBELE Y [13]. The 20-35 age group was most found with a frequency of 90.5%, in fact sexual activity is often early in Africa as shown by our study with extreme ages of 15 and 40 years. Accidents such as GEU are not exceptional among teenage girls. Married women accounted for the majority of our study population with a frequency of 98%. Housewives accounted for 81% of EGU cases and students accounted for 3% of cases. The average parity was 2 children per woman. The GEU has been identified up to the 6th pare. This trend was found by MEYE JF [9]. Nulliparous had accounted for 11.9% of cases. This frequency was higher than that of MOUNANGA M [17]. Which had yielded 8.42%, but lower than that of RATINAHIRANA S [18]. 19.7%. The background analysis allowed us to identify some of the risk factors for THE GEU. Indeed FERNANDEZ H [19]. Had noted the role of a history of Chlamydia

Trachomatis infections, tubal surgery, appendectomy, prior GEU, the use of certain contraceptive methods such as the intrauterine device in the occurrence of GEU. Infectiously, no patients reported a history of Chlamydia Trachomatis infections, while MUTEGANYAN D [20]. Found a history of Chlamydia Trachomatis infections in 75% of EGUs cases, this is certainly due to the non-systematization of chlamydia serology in our context related to the inadequacy of the technical plateau at the laboratory level of our hospital. On the other hand, we have established a relationship between gonococcal infection and the occurrence of GEU. The corollary of gonococcus infection is the multiplicity of sexual partners that is related to the occurrence of GEU. Data from RATINAHIRANA S. [18] show that 85.5% of GEU cases had multiple sexual partners compared to 76.2% in our series, this reinforces our results in relation to the multiplicity of sexual partners as risk factors for the occurrence of GEU. The history of GEU was found in 7.14% of cases. This frequency is higher than that of DEMBELE Y [13]. Which had yielded 5.5%, but comparable to that of RATINAHIRANA S [18]. Which found 8% and lower than that of MOUNANGA M [17]. Which had reported 14.73% (14 cases out of 95 GEU). In our series 7 patients (16.66%) had a history of injectable hormonal contraception. This rate is higher than that of DEMBELE Y [13]. Which had yielded 0.8%. No history of intrauterine device use was found in our series as in SEPOU AL [21], however DEMBELE Y [13], reported a frequency of 3.9%. The average gestational age at the time of the consultation was 8 weeks of amenorrhea. Believing that she is pregnant does not always lead the woman to consult in our context. Patients consult when the pregnancy progresses is abnormal. Functional signs of amenorrhea, pelvic pain and metrorragia suggesting GEU were found in 39% of patients, representing a frequency of 92.8%. Our frequency is higher than that of SEPOUL AL [21], which had yielded 44.8%. In case of un ruptured GEU palpation of the laterouterine mass is a very important sign. In our series we found a laterouterine mass in 2.4% of cases. This frequency is lower than that of SEPOUL AL [21], bamOUNI YA [16], MOUNANGA M [17], and RATINAHIRANA S [18]. Who reported 23.3%, 13.5%, 6.31% and 11% respectively. In the event of a broken GEU, hemoperitoin is the main clinical sign found by most African authors [16-18]. We found hemoperitoin in 90.5% of patients, 26.3% of whom had an associated hypovolemic shock. DEMBELE Y [13]. had reported 76.7% hemoperitoin. The dosage of urinary beta HCG coupled with pelvic ultrasound had been paraclinical examinations performed in our series in 88.1% of cases. Visualization of an ovular sac outside the uterine cavity in 7.4% of cases and evidence of an effusion in the peritoneal cavity in 90.47% of cases had authorized the practice of a thalocentese or a transparietal puncture. In our series culdocentesis was practiced in 88.1% of cases and had been positive in 81% of cases against MEYE JF [9]. Had performed culdocentesis in 67.9% of cases. The transparietal puncture was performed in 71.4% of patients and had been positive in 100% of cases against MEYE JF [9]. Had not performed any transparietal punctures in his series. These 2 examinations used together or individually depending on the case led in 96% of cases to an emergency laparotomy. Treatment in our series was surgical in 100% of cases. Laparotomy remains the most widely used therapeutic method in Africa, especially in our context. The acts performed during this laparotomy were identical for most African authors [18, 19]. We performed a total salpingectomy in 81% of cases, a salpingotomy in 2.4% of cases, an annexectomy in 9.5% of and an abdominal pregnancy extraction in 7.1% of cases. Coeliosurgery, a reference treatment in developed countries, remains a limited practice in our context. This is due to the lack of a technical coeliosurgery tray in our hospital. Surgical procedures were simple in 97.6% of cases and were complicated in 2.4% of cases by severe anaemia requiring multiple transfusions. No maternal deaths were observed in our series against Dembele Y [13], Sepoul AL [21] and Soumare M [15]. Reported maternal death rates of 0.8%, 1.7% and 1.72% respectively. In our series the life-threatening prognosis was engaged because 90.5% of the patients had a hemoperitoin picture. The functional prognosis was difficult to assess as there was a lot of vision loss. It was reserved for 7.1% of patients because they were at their second Salpingotomy. The prognosis was good in 4.76% of patients as they returned pregnant after surgery. However, it was better among women who were already mothers before having GEU in 64.3% of cases (paucipares and multipares). The functional prognosis was poor in primigestes who initiated their obstetric life in 11.9% of cases. No cases of recurrence in our series apart from lost sight. GEU was confirmed to histology for the 60% of surgical parts that were sent to anatomopathology.

CONCLUSION

GEU is a public health problem in our environment, linked to the increasing frequency of its frequency in the last 2 decades. Its frequency in our service was 1.12%. It affects much more young people in the 20-35 age group with a frequency of 90.5%. The average age of our patients was 26. Low gestity and low parity seem to be more affected. Increasingly common low genital infection and multiple sexual partners, despite the spread of HIV, are significant risk factors. The classic symptomatic triad of abdominal-pelvic pain, amenorrhea and metrorragia was found in 92.8% of patients. Heavy surgical treatment has been used in 100% of cases with the results of significant tissue mutilation and a decrease in the chances of subsequent fertility.

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