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Abstract: Bilateral simultaneous ectopic pregnancy is a rare clinical event, involving two distinct patient groups: those conceiving naturally and those undergoing assisted reproduction techniques [1] . It is more prevalent among women undergoing assisted reproductive techniques or ovulation induction. Clinical manifestations are uncertain, lacking distinct characteristics to differentiate it from unilateral ectopic pregnancy [2]. Bilateral ectopic pregnancy poses significant risks of maternal mortality and morbidity, requiring prompt diagnosis and treatment. It is usually identified during surgery, as radiologists may not fully assess the opposite side [3]. Management strategies are contingent upon various factors such as patient stability and future fertility intentions. In the examined case studies, treatment frequently involved the administration of methotrexate, bilateral salpingectomy, or a blend of unilateral salpingectomy and unilateral salpingostomy. Additionally, there have been instances where "milking" the fallopian tube was employed to promote the expulsion of ectopic pregnancy tissue [4, 5].

Keywords : Bilateral simultaneous ectopic pregnancy, emergency, multidisciplinary approach

Case Presentation

A 38-year-old female, a smoker with a history of four vaginal deliveries ; not utilizing any methods of contraception, presented to the emergency room with acute pelvic pain after seven weeks of amenorrhea. On admission, she was conscious but very pale, hypotensive (8/5 mmHg), tachycardic (120 bpm), and polypneic, with a painful abdomen showing generalized defence. Examination revealed minimal bleeding on speculum and bilateral lateral uterine tenderness on vaginal examination. Emmergency abdominopelvic ultrasound indicated a large blood effusion with an empty uterus, and in front of qualitative b hCG we suspected that it is a ruptured ectopic pregnancy.

Immediate vascular filling was initiated to address hypotension, and the patient was promptly taken to the operating room for exploratory laparotomy. Intraoperatively, bilateral tubal ectopic pregnancies were discovered, with rupture noted on both sides. Abundant effusion (700cc initially) was aspirated, followed by bilateral salpingectomy, ensuring hemostasis, and washing and aspiration of the abdominal cavity[Figure 1,2]. The abdomen was closed layer by layer. the operating parts were sent for an anatomopathological examination, which later confirmed the presence of chorionic villi in both tubes

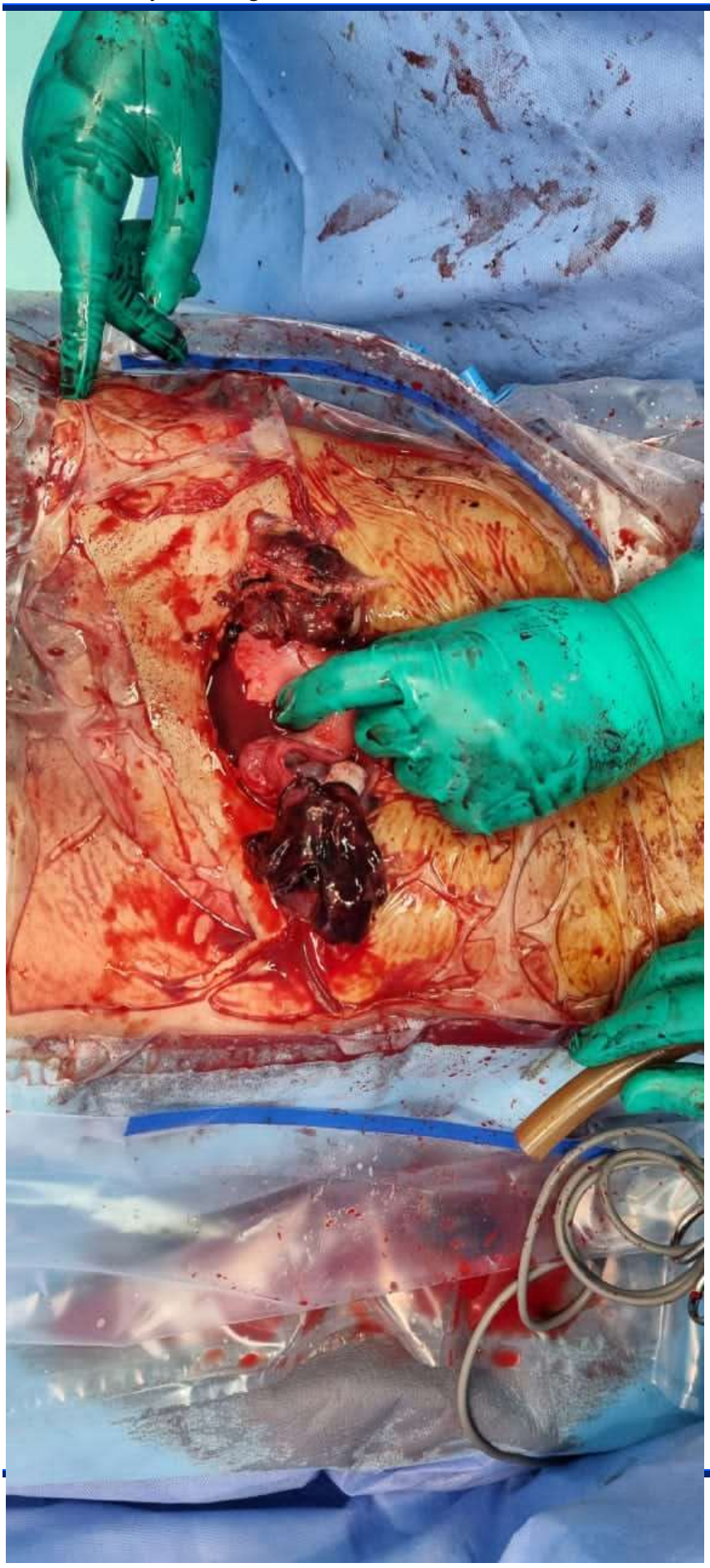

FIGURE 1,2 : intra-operative image bilateral simultaneous ectopic pregnancy

Discussion

Ectopic pregnancy is a critical obstetrical emergency, occurring in about 1% of cases and showing an increasing prevalence. Bilateral tubal pregnancy is an exceptionally rare event, and simultaneous bilateral tubal pregnancy represents the rarest form, especially without the use of ovulation induction techniques or Assisted Reproductive Technologies (ART) [6]. Postulated potential mechanisms for the occurrence of a bilateral tubal pregnancy include: concurrent multiple ovulation; successive fertilization events; or the migration of trophoblastic cells across the peritoneum from one ectopic pregnancy to the other tube, leading to implantation [7]. Individuals with a familial background of twinning and prior utilization of fertility medications are deemed to have an elevated risk [8] . Additional risk factors for ectopic pregnancies encompass a background of sexually transmitted infections, engaging in sexual activity with multiple partners, utilization of intrauterine devices, smoking, use of hormonal contraception, pelvic surgical interventions, prior experience of ectopic pregnancy, a history of infertility, fallopian tube damage, and prenatal

exposure to diethylstilbestrol [7, 9]. In this study, our patient had a spontaneous pregnancy and did not present any risk factors among those already mentioned except smoking .

The typical manifestation of an ectopic pregnancy (EP) often includes a recognizable trio of symptoms: absence of menstrual periods, vaginal bleeding, and abdominal pain which was the case for our patient. Timely identification of a tubal ectopic pregnancy is crucial to avert complications such as tube rupture, internal bleeding, and the potential for maternal mortality and morbidity [10]. Diagnosing bilateral ectopic pregnancy prior to surgery poses challenges. Typically, the diagnosis is confirmed during surgery, as measuring β-hCG levels isn't notably helpful [11, 12]. Moreover, contralateral ectopic pregnancies are often asymptomatic or challenging to detect [11]. Ultrasound can identify ectopic pregnancy in approximately 90% of cases [12].

A study found that transvaginal sonography detected adnexal abnormalities in nearly 95% of ectopic pregnancy cases. This suggests that transvaginal sonography is highly sensitive in detecting ectopic pregnancies. The most common abnormality observed, occurring in over 50% of cases, was a nonspecific adnexal mass. This information suggests that although the existence of an adnexal mass might indicate the possibility of an ectopic pregnancy, it may not exclusively point to this diagnosis. Approximately 25% of cases exhibited a tubal ring without a yolk sac.This finding may be significant in diagnosing ectopic pregnancies, as it could indicate the presence of a gestational sac within the fallopian tube, a characteristic feature of ectopic pregnancies [12]. These findings converge with our patient except that she was in a state of shock presenting a very abundant hemoperitoneum requiring immediate surgical intervention by laparotomy. However, in the majority of instances, the identification of bilateral tubal pregnancy occurs solely during surgery through the inspection of the opposite adnexa, underscoring once more the significance of a thorough intraoperative assessment of the entire pelvic region and examination of both adnexa on both sides [13], in accordance with this, the bilateral pregnancy of the patient studied was detected intraoperatively .

The treatment of ectopic pregnancy can besurgical, medical, or expectant. The approach to treatment depends on factors such as the patient's clinical condition, the location the ectopic gestation, whether it is ruptured or unruptured, the patient's desire for future fertility, and the availability of medical facilities [14, 15]. Surgical management have varied, including procedures such as salpingectomy for one fallopian tube and linear salpingostomy for the other, as well as bilateral salpingostomy or bilateral salpingectomy [16]. Laparoscopic is considered the preferred treatment approach for bilateral tubal ectopic pregnancy. However, explorative laparotomy may be necessary in cases where patients are unstable with ruptured ectopic pregnancy [1]. There are only a limited number of case reports documenting bilateral tubal pregnancies primarily treated with methotrexate, with a notably high rate of treatment failure [17]. Laparotomy with salpingectomy was done in the case presented because both tubes were ruptured and bleeding .

Methotrexate administration for suspected unilateral cases meeting eligibility criteria may be utilized as a medical management approach, with close monitoring through serial β-HCG tests until pregnancy resolves completely. However, ultrasound examination's limitations in definitively diagnosing a bilateral tubal pregnancie, coupled with the absence of studies detailing dosing regimens and the efficacy of methotrexate for bilateral ectopic pregnancies, make medical management seem unsuitable for suspected bilateral tubal pregnancies cases [18]. Literature review reveals only one case where a spontaneous bilateral tubal pregnancie was diagnosed preoperatively via ultrasound examination and successfully treated with two vaginal ultrasound-guided intratubal methotrexate injections[19] . Other rare reported cases involved bilateral tubal pregnancie identification after a period of patient illness, necessitating urgent laparotomy due to hemodynamic instability [20].

Conclusion

the management of ectopic pregnancy requires a multidisciplinary approach involving obstetricians, gynecologists, emergency medicine physicians, and nurses. Prompt recognition, resuscitation, and surgical intervention are crucial to improve outcomes and minimize the risk of morbidity and mortality associated with this potentially life-threatening condition.

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