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Case Series

Obstetrics and Gynaecology Section

Experiences in Reproductive Health Services in COVID-19 Era: A Nightmare

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ABSTRACT

With consistent efforts for the last four decades in the area of family planning, it had been a rare instance to receive emergencies with uterine perforation, gut injury, septicaemia, and multiorgan failure with unsafe surgical intervention. But Coronavirus Disease 2019 (COVID-19) pandemic has caused major disruption to the family planning information and services globally. These gaps have been due to breakdown in contraceptive supply chains, closure of primary healthcare and abortion clinics, diversion of staff from family planning services to COVID-19 response team and the poor response was also due to fear of infection in hospital. As a result, many unsafe abortions in the form of near-miss mortality nightmares were revisited. The present series is of five cases, done at a tertiary care teaching hospital wherein there was mismanagement of the abortion due to lack of expert services during the COVID-19 pandemic. Uterine perforation with sepsis was observed in all the patients with bowel injury in three and broad ligament haematoma in one patient. A comprehensive, women's sexual health system response to address family planning services provision during pandemics is the need of the hour for India to avoid unwanted pregnancies and prevent additional mortality and morbidity in women.

Keywords: Coronavirus disease-2019, Hysterectomy, Ileostomy, Laparotomy, Unsafe abortion

INTRODUCTION

Past global health emergencies show that access to safe abortion can be negatively impacted during crisis [1]. The World Health Organisation (WHO) declared the outbreak of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) to be a public health emergency of international concern on 31st January 2020 [2].The world's biggest lockdown to curb the novel coronavirus, imposed in March 2020 has left unprecedented, unseen rare experiences in all fields and family welfare services are no exception.

With four decades of consistent efforts in this area, the risk reduction was achieved in the occurrence of septic abortions, more too illegal with devastating maternal health affections. Various tools under WHO eligibility criteria were being implemented to avoid unplanned unwanted pregnancies. Even safe methods for medical and surgical abortions under the Medical Termination of Pregnancy (MTP) act and Prenatal Diagnostic Techniques (PNDT) act were practiced at large. Unsafe abortions can result in an overall adverse effect with complications such as procedure related excessive haemorrhage, uterine perforation and injury beyond it in genital tract, gastrointestinal tract and fulminant sepsis with multiorgan failure including renal dysfunction, which if not managed as acute emergency, can end in maternal death [3].

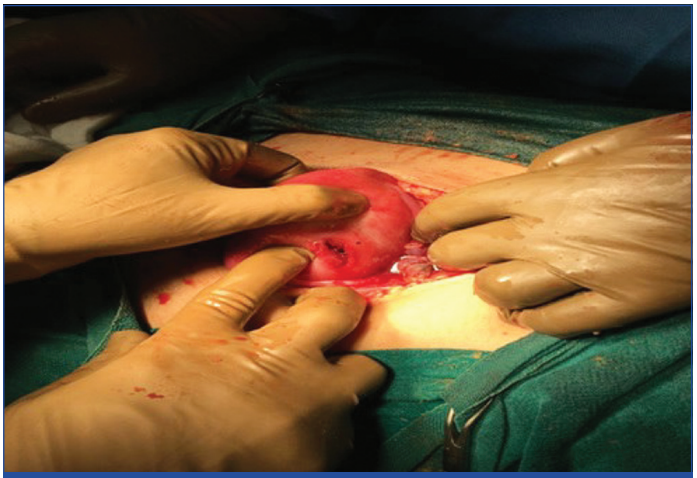
The outbreak engaged India's public sector doctors and nurses in pandemic management, which disrupted everyday routine sterilisation procedures- the most preferred method of family planning. India's army of community level women healthcare workers, who are "big motivators" amongst seekers of reproductive services, had been diverted and engaged for contact tracing of COVID-19 positive patients leading to a pullback in family planning services. It was also observed that more time at home had increased couple sexual activity and even may have increased intimate partner violence which sometimes extends to sexual coercion and assault resulting in unplanned pregnancies [4]. Many such conceptions had poor access to safe abortion services. As a result, illegal interventions occurred and those who reported late suffered maternal morbidity and mortality.

Five such cases admitted as obstetrical emergencies at Sri Guru Ram Das Institute of Medical Sciences and Research (SGRDIMSR) Amritsar, a tertiary care centre in Punjab, India, was reported over the period from June to December 2020.

CASE SERIES

Case 1

A P3L3; 40-year-old lady presented with shock and severe pain in the abdomen and vomiting nearly 24 hours after surgical intervention by the midwife for eight weeks gestation. Besides toxic look, her abdomen was tense, tender with bowel sounds absent.On per vaginal examination- uterus was bulky with marked forniceal tenderness and fullness. Ultrasound (USG) revealed a distended uterine cavity with significant fluid in the abdomen. Urine Pregnancy Testing (UPT) was positive, Haemoglobin (Hb)-6.0 gm%, beta-human chorionic gonadotropin (beta-hCG) 569 miu, serum electrolytes, renal and liver function tests done were within normal limits. Emergency laparotomy showed the peritoneal cavity full of foul-smelling pus and faecal matter. A perforation sized 3×2 cm was identified on the left posterior wall of the body uterus [Table/Fig-1]. Ileum was injured 10-12 cm away from the ileocecal junction. Resection of gut with ileostomy and uterus repair was performed. The patient recovered and discharged on the 10th postoperative day.

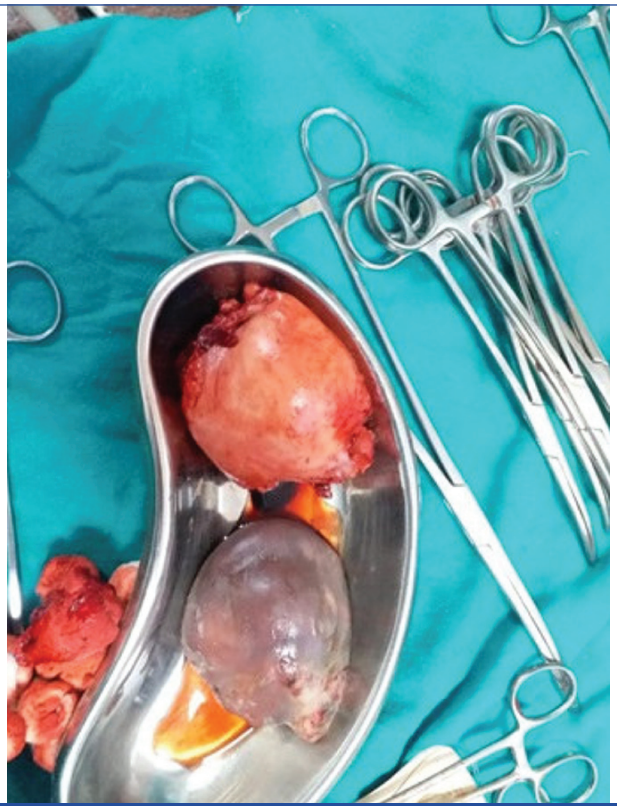


[Table/Fig-1]: Perforation of 3×2 cm on posterior wall of uterus.

She reported for follow-up and was scheduled for ileostomy closure after one month.

Case 2

A 24-year-old G4P3L2 subject with previous 3 Lower Segment Caesarean Section (LSCS) presented in shock with history of amenorrhoea of five months and intrauterine foetal demise following attempted intervention to expedite expulsion by midwife by using presumably un-sterile technique following some oral medication. She came in emergency almost 16 hours after the procedure of induction. On examination, her pulse rate was 136/min, blood pressure was 86/60 mmHg and temperature was 101°F. Per speculum examination revealed foul-smelling pus-like discharge. Per vaginal examination showed cervix admitting two fingers,forniceal fullness and tenderness. On USG, foetal parts were lying in uterovesical pouch suggestive of uterine perforation and fluid in peritoneal cavity. Emergency laparotomy was done after taking high-risk consent. Intraoperatively, the foetus equivalent to 16-18 weeks was found lying anterior to uterus having extruded through a rent in the anterior uterine wall of approximately 5×5 cm (scar rupture) [Table/Fig-2]; caecum and colon were adherent to the anterior wall of the uterus with haemorrhagic fluid in peritoneal cavity. Ileostomy with the caecal repair was done for caecal perforation.Since the patient was in shock, a life-saving subtotal hysterectomy was done after explaining its need and taking appropriate repeat consent. Patient remained in Intensive Care Unit (ICU) for three days and was discharged in satisfactory condition on the 10th day. The care for ileostomy and its plan for closure was explained, but she did not report for follow-up surgery thereafter.



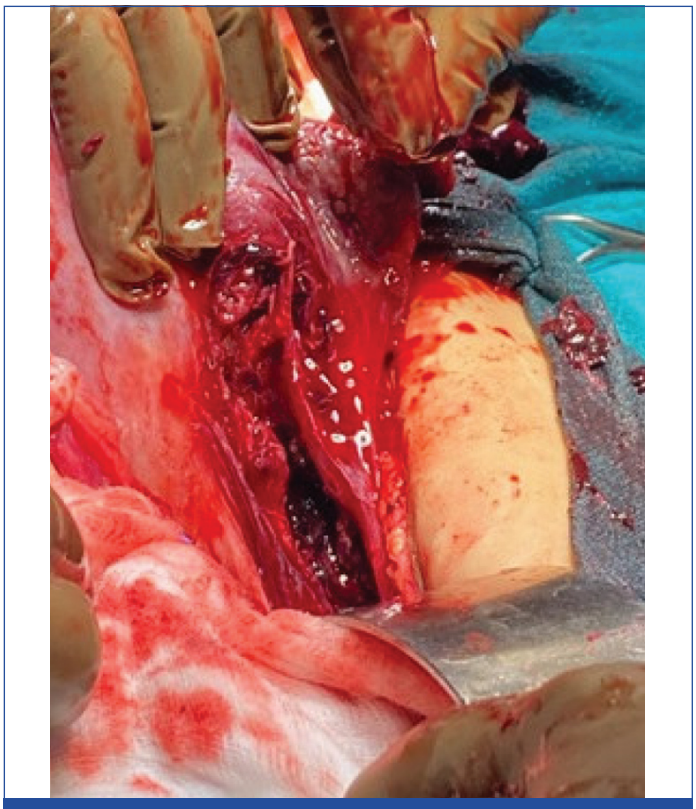
[Table/Fig-2]: Foetal head size of 18-20 weeks size which was lying in abdomen along with perforated uterus (Subtotal hysterectomy).

Case 3

A 23-year-old young P1L1 patient was admitted in emergency with acute pain abdomen, bleeding Per Vaginum (PV) and retention of urine for one day.She gave history of attempted removal of retained placenta three days back following abortion done by midwife at 18 weeks gestation with Intra Uterine Death (IUD). She looked pale, febrile, dyspneic and dehydrated with a pulse rate of 150/min and blood pressure of 78/60 mmHg. Differential diagnosis of perforation was kept in mind, which was confirmed by USG showing a rent in the posterior wall with fluid collection in the abdomen. Patient was planned for an emergency laparotomy. The intraoperative findings showed abdominal cavity containing pus and faecal matter with a rent of 7×2 cm with ragged edges on the posterior wall of the uterus near fundus. There was a recto sigmoid injury which was repaired with an ileostomy and uterine rupture was repaired. The patient succumbed to multiorgan failure in ICU 36 hours postoperatively.

Case 4

A 35-year-old patient G3P2L2 with previous 2 LSCS came in shock 6-8 hours post evacuation. There was history of lactational amenorrhoea of four months and the patient got termination of pregnancy after its confirmation by the midwife. She was in haemorrhagic shock with haemoglobin of 4 gm/dL. USG revealed a uterine size of 13.3×6.8×5.4 cm with multiple air foci and a heterogenous hypoechoic area blood clot in right adnexa of a size 8.5×7.1×5.1 cm. Emergency laparotomy was planned. Intraoperatively two rents- one of 4 cm size and another 8 cm on posteriorlateral uterine wall were identified [Table/Fig-3]. Haematoma was drained. The abdominal viscera were intact. Total abdominal hysterectomy with right salpingo-oophorectomy and left salpingectomy was done. The patient was discharged on 10th day and had an uneventful convalescence. She reported for follow-up after four weeks in good health.



[Table/Fig-3]: Large rent on posterolateral wall of the uterus.

Case 5

A 27-year-old patient P1L1A1 came in the emergency with fever, vomiting, diarrhoea, and pain abdomen. The patient was dyspneic and febrile at the time of admission. She gave history of intake of MTP pills and D&C for failed abortion by midwife 15 days back. On USG there was evidence of ragged anterior wall suggestive of injury or perforation, with big mass of mesenteric fat showing stranding suggestive of inflammatory changes. All laboratory tests were done {Total Leukocyte Count (TLC)-28400 cu.mm, Hb-8 gram%, serum electrolytes, renal and liver function tests done were within normal limits. High vaginal swab sent for culture and sensitivity}. Since, the patient was haemodynamically stable with no urinary or bowel problem, she was planned for conservative management under strict vigilance with adequate fluid resuscitation, broad spectrum antibiotics

(second generation cephalosporins), metronidazole infusion and blood transfusion. This was followed later by oral antibiotics and anti-inflammatory medications. Her hospital stay was for 10 days and she was discharged on request after a review ultrasound which showed resolving abdominal mass and decreased TLC from 11,200/cu.mm after 10 days of hospital stay. She had a follow-up after seven days for change of medication.

DISCUSSION

Abortion is a time-sensitive service, with delays and denials leading to unsafe abortions. If safe abortion services are restricted or are unavailable, people turn to unsafe means to terminate their pregnancies. Access to safe abortion was negatively impacted during the COVID-19 global health emergency [1].

Since accessibility to healthcare services especially related to family planning was either not available or at low priority in health stream during lockdown, many aspirants suffered. As per a study done by IPAS Development Foundation, in the first three months of COVID-19 lockdown, 47% of the estimated 3.9 million abortions meaning nearly 1.85 million that would have likely taken place under normal circumstances were compromised. An 80% of this, accounting to nearly a 1.5 million was due to lack of availability of medical abortion drugs at pharmacy stores and the rest nearly 20% were due to reduced access to healthcare facilities [5].

Due to uncertainty of reproductive healthcare provisions in pandemic- the services related to contraception and abortion took a back seat and was neglected by compulsion of COVID-19 load on hospital service [6]. A United Nations Population Fund (UNFPA) technical note estimated that due to measures taken for COVID-19 containment, many women were not be able to use contraception and this would result in 7 million unintended pregnancies [7]. As a result of COVID-19 pandemic there was also a dearth of infrastructure, skilled manpower and logistics which resulted in suboptimal functioning of the health systems [8]. A lacunae was observed in the abortion services in our system due to changing guidelines and priorities, leading to life-threatening complications.

Bowel injury which is a serious and life-threatening complication was found in cases 1,2 and 3. In case no. 3 bowel injury was inflicted during manual removal of placenta by untrained Midwife. A similar case of rupture uterus with bowel injury was reported Akinola OI et al., in a young patient 28-year-old (P3L3) in which bowel injury was inflicted during manual removal of placenta and patient had to undergo right hemicolectomy and ileo transverse anastomosis with uterine repair and bilateral tubal ligation [9]. However, there was no bowel injury in case no. 4, but the patient had a big broad ligament haematoma with irreparable rupture uterus for which hysterectomy was contemplated with right salpingo-oophorectomy and left salpingectomy. Another similar case was reported by Joshi SM in which the patient reported with shock and severe anaemia after evacuation at eight weeks of gestation [10]. On laparotomy, a rent of 2 cm was detected in the posterior wall which was stitched and a hysterectomy saved.

Case no. 5 could be managed on conservative treatment with high generation antibiotics, blood transfusion and supportive therapy. One case of conservative management was also reported by Pillai KS et al., in which the patient reported with breathlessness, pain in the abdomen, and fever with pelvic abscess on 8th-day postevacuation [11]. They took the help of laparoscopy and drained 100 mL of pus and treated with i.v. antibiotics in the ICU and was discharged in satisfactory condition.

The reason for these complications was that abortions they were done by unskilled workers in unhygienic conditions or due to non accessibility of safe abortion services during lockdown period [12,13].

Family planning services provisions showed a decline as per figures from Health Management Information System (HIMS) [14]. There was 36% reduction in use of first dose injectable contraceptive and 21% in IUD use from December 2019 to March 2020. There was also a deficient supply of condoms (15%); oral contraceptive pills (23%). The surgical abortions were less practiced by 28%. Elective tubal ligation and IUD insertions were deferred both in public and private sector due to strict COVID-19 protocols and due to adversely affected financial status of the public [8].

Due to lockdown many abortions that could have been medically managed had to be converted to surgical abortions and that too were carried out by untrained personals outside. The fear of contracting COVID-19 in the hospitals led to refusal amongst the patients to come for abortion services. All five of the cases suffered from avoidable complications of uterine perforation, haematoma, gut injury, shock and sepsis thereby increasing the morbidity and mortality in the reproductive age group. Uterine perforation with sepsis was observed in all the patients with bowel injury in three and broad ligament haematoma in one patient.

Despite all the above complications, four patients were saved due to a multidisciplinary approach in the tertiary care centre. So, the lesson is that one must safeguard the sexual rights of a woman to make appropriate contraceptive choices. There should be continuity of these services as “essential reproductive health services” even in a pandemic or other disastrous situation including expertise and infrastructure. Safe abortion services especially in high risks situations like previous caesarean sections are rightfully essential. Early diagnosis and management of complications to avoid mortality or near-miss situations due to illegal interventions is the need of the hour.

CONCLUSION(S)

The COVID-19 pandemic had an unpredicted significant negative impact in low income countries like India, with maternal health and family planning taking a hard hit. COVID-19 broke down the already existent meagre system of family planning and abortion services. Continuity in services is needed even in times of pandemic. This would require a sustained effort on part of policy makers and health providers – both in the periphery and tertiary care centres. Ease of access to healthcare, contraception and safe abortion services with early management of complications can help a long way.

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