

## Uterine Perforation After Manual Vacuum Aspiration

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### ABSTRACT

Surgical modality of abortion should be backed up by adequate skill and facility in service delivery as well as in detecting and managing complications.

**Keywords:** : abortion, hemoperitoneum, manual vacuum aspiration

### INTRODUCTION

Termination of pregnancy before 22 weeks of gestation either spontaneous or induced is defined as abortion. However, there is certain law regarding how abortion is conducted. Abortion was legalized in 2002 in Nepal. It is available up to 12 weeks' gestation on request, up to 18 weeks' gestation in cases of rape or incest, and at any time if the pregnancy poses a danger to the woman's life or physical or mental health or if there is a fetal abnormality.<sup>1</sup>

According to the World Health Organization (WHO) unsafe abortion is a procedure for terminating a pregnancy performed by persons lacking the necessary skills or in an environment not in conformity with minimal medical standards, or both. Unsafe abortion is one of the causes for various abortions related complications.<sup>2</sup> Surgical intervention for first and second trimester termination of pregnancy is quite common. There are two recommended modalities of abortion in practice: surgical and medical. Surgical abortion done without proper knowledge and standard treatment end up with various complications of which, uterine perforation is an uncommon, yet serious complication of surgical termination of pregnancy. Uterine perforation can cause severe morbidity and even mortality; however, prompt recognition and management can improve clinical outcome.

### CASE

A 29 years old para one came to B and C Hospital, Birtamod, Jhapa after travelling 8 hours in the

ambulance with complaint of pain abdomen for 4 days and dizziness for one day. The pain was severe and continuous and during the last one day the pain was associated with dizziness. There was no fever. She gives history of manual vacuum aspiration 3 days back at the local birth control clinic at her village in Taplejung at 8 week of gestation. The procedure was painful and was done under local anaesthesia. She sustained the procedure well and was discharged after 2 hours of the procedure. At the time of discharge she was having mild pain and bleeding per vagina.

On examination she was pale. Her pulse was 102 bpm and her blood pressure was 70/60mmHg. There was generalized tenderness throughout the abdomen; and on internal examination there was cervical bleeding and cervical motion tenderness. Investigation showed hemoglobin 5.3g/dL and ultrasonography showed extra uterine gestational sac with cardiac activity in the right adnexa abutting the fundus and frank haemoperitoneum throughout the abdomen. Her total counts, renal function and liver function test were within normal limit.

She was resuscitated with blood and fluid and emergency laparotomy was planned. Intra operatively sac with product of conception was floating in the abdomen along with the clots. There was a rent of 2cm at the left posterior wall of the fundus; both tubes and ovaries were intact. There was no injury to other viscera. There was 3 liters of hemoperitoneum [Figure-1].

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**Figure-1: Perforation at fundus of uterus**

The rent in the uterus was closed in 2 layers, clots removed, irrigation done and abdominal wound closed. The patient received three units of fresh blood intraoperatively.

Patient was shifted to ICU and received further 2 units of packed cell. She received antibiotics and misoprostol. The patient was discharged on 3rd post-operative day with iron supplements and antibiotics. Her hemoglobin at the time of discharge was 9.8gm/dL. Treatment cost was managed by the referring center. It was said to be an unwanted pregnancy aborted but the perforation was missed at the abortion center.

## DISCUSSION

An estimated 323,000 abortions were performed in Nepal in 2014, which accounts to a rate of 42 abortions per 1,000 women aged 15-49. Of these estimated 80,000 women were treated in health facilities in 2014 for complications related to abortion and miscarriage. Eighty percent of these women had complications that resulted from unsafe abortion. One out of every 1,000 women of childbearing age in Nepal, eight were treated for complications due to unsafe abortions in 2014. Pakistan had a higher treatment rate (14 per 1,000) and Bangladesh a slightly lower one (seven per 1,000).<sup>1</sup>

According to Mittal, out of 9344 first trimester abortions performed, 37 uterine perforations occurred. The Suction canula was responsible for more than 50% of perforation. Fundal and anterior wall perforation was most common and retroverted uterus was more common 59.4% than anteverted.<sup>3</sup>

Most of the small intrauterine perforations go unnoticed. However perforation to the lower part of the uterus are more serious as they cause injury

to uterine vessels resulting in massive hemorrhage.<sup>4</sup> Even in non-abortion gynecological procedure like hysteroscopy may result in uterine perforation in 1.6% of cases.<sup>5</sup>

According to Zakin, up to 15% of uterine perforations caused by intrauterine devices may cause pelvic visceral injury as well.<sup>6</sup> In USA 9% of the ladies having perforation during termination of pregnancy ended up with hysterectomy.<sup>7</sup>

Prevention of unwanted pregnancy should be encouraged. Surgical abortion should be carried out by a trained personnel in an equipped center. High quality care for abortive service includes internationally approved medical technology, clinical standard protocols for infection prevention, pain and complication management. Management and referral for complications of the procedure and linkage of abortive care services to a place with proper surgical backup are critical components of quality care.<sup>8</sup> In case of perforation early detection and treatment helps to decrease comorbidities. RCOG (Royal College Of Obstetrics and Gynaecology) recommends the use of prostaglandins (misoprostol) prior to surgical abortion for cervical ripening to reduce the risk of perforation.<sup>9</sup> The use of prostaglandin reduces the dilatation force, hemorrhage, and uterine and cervical trauma. Adequate and gradual dilatation avoiding excess force also limits the complications.

Unsafe abortion is the third major cause of death in Nepal. According to WHO, the millennium development goal of reducing maternal mortality ratio cannot be achieved without addressing the issue of unsafe abortion. Unless safe abortion services are made accessible through the expansion of provider based and affordable cost, Nepalese woman from poor family will continue to rely on unskilled providers.<sup>10</sup>

## CONCLUSIONS

Awareness among the people should be made at periphery to avoid unwanted pregnancies and for the safety of women's health any surgical procedures should ideally be done at the center where there is skill and facility to manage the complications. Timely detection of complication, its management and referral should be prompt to minimize morbidity and mortality.'

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