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CERVICAL CARCINOMA IN PREGNANCY

*Rashmi verma

Assistant Professor, Department of Obstetrics and Gynaecology Katihar Medical College and Hospital, Katihar

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ABSTRACT

A 27 year old pregnant lady, married for 4 years, at 37 weeks of gestation presented to the outpatient clinic in Katihar Medical College and Hospital with chief complaints of vague abdominal pain. On per speculum examination a reddish ulcerative growth on cervix filling the vagina was found. Punch biopsy was done and the histopathological report showed well differentiated squamous cell carcinoma. No signs of spread of cancer, local or nodal metastasis was seen. (stage 1a). The patient was managed by classical cesarean section followed by total abdominal hysterectomy and bilateral salpingo-oophorectomy. The histopathological report showed stromal invasion of 3mm in depth and 6mm laterally (FIGO stage 1a1). Postoperative period was uneventful and later she was referred to Mahavir Cancer Sansthan where she received cycles of radiotherapy and chemotherapy. Thereafter the treatment discontinued.

INTRODUCTION

Cervical carcinoma is one of the most important malignancy in pregnancy. The incidence of cervical cancer is progressively declining in the developed countries due to organised screening and most of the cases are detected as microinvasive cancer. This is easy to manage, has no detrimental effect on present or future pregnancy and has excellent prognosis. But in developing countries like India, one to 3 percent of women diagnosed with cervical cancer are pregnant or postpartum at the time of diagnosis. Cervical cancer is one of the most common malignancies in pregnancy, with an estimated incidence of 0.8 to 1.5 cases per 10 000 births. Stage for stage, the course of disease, and prognosis of cervical cancer in pregnant patients are similar to those of non-pregnant patients. The presenting symptoms and signs of cervical carcinoma in pregnancy are dependent upon the clinical stage and size of the lesion. The diagnosis of cervical cancer is often delayed in pregnant women since many of these symptoms are similar to those associated with a normal pregnancy. The most common symptom is (postcoital) vaginal bleeding, which is usually painless and can differ in quantity. Abnormal vaginal discharge (bloody, watery, malodorous or purulent), although less frequent, can also be found. Symptoms can be mistaken for complications of pregnancy, and diagnosis delay occurs if the level of suspicion is low.

*Corresponding author: Rashmi verma,
Assistant Professor, Department of Obstetrics and Gynaecology
Katihar Medical College and Hospital, Katihar.

Pelvic or lower back pain and bowel or urinary symptoms, which may also mimic frequently occurring pregnancy-related complaints, can be found with advanced disease. Zemlickis and colleagues analysed data of 40 patients with cervical cancer during pregnancy, and found that pregnant women were more likely to present with early disease because of regular, pregnancy-related obstetric examinations. Accurate staging is one of the main issues in cancer management, in order to tailor treatment with the aim of optimizing oncologic outcome. The International Federation of Gynecology and Obstetrics (FIGO) schema for staging, is primarily based on clinical examination, also in the pregnant state.

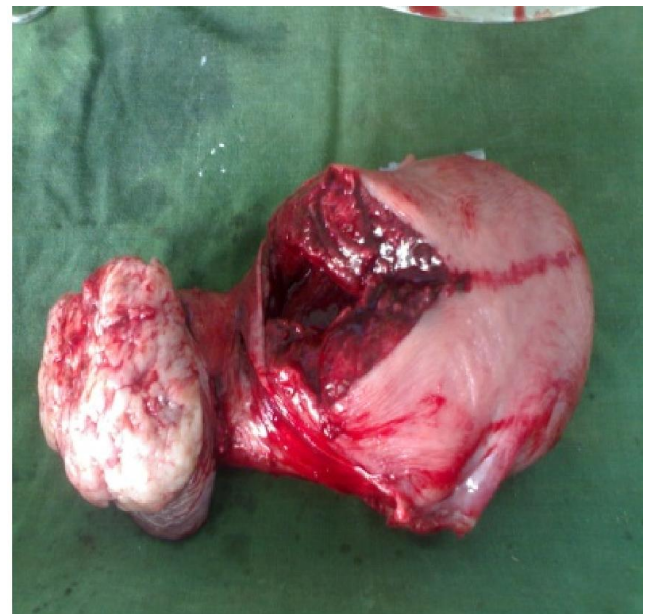
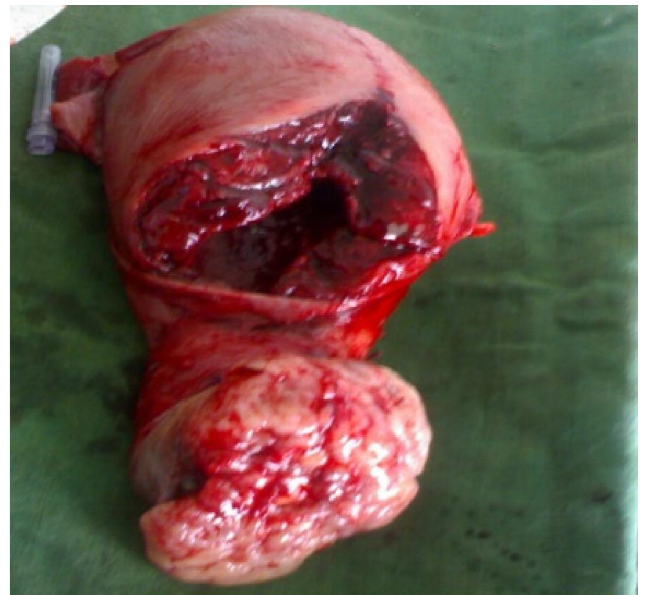
If pelvic examination and accurate clinical staging is difficult in the ambulatory setting, examination under anaesthesia is suggested. Lymph node status is one of the most significant prognostic factors for patients with cervical cancer. Laparoscopic lymphadenectomy as a staging procedure for pregnant women with stage I disease is feasible during pregnancy and allows for reliable risk stratification. In 31 reported cases, maternal and neonatal morbidity was low. However, it is wise to bear in mind that lymphadenectomy has no therapeutic effect by itself. The usefulness of this invasive diagnostic procedure has to be evaluated on an individual basis. MRI is the reference diagnostic examination which can help determine tumour size in three dimensions, stromal invasion, amount of healthy stroma, vaginal and parametrial invasion, and also lymph node infiltration. As stated by the American College of Radiology, present data have not

documented any deleterious effects of MRI exposure on the developing foetus in any trimester of the pregnancy. Gadolinium (a category C drug according to the US Food and Drug Administration) should only be used if absolutely essential. No adverse effects to the neonate have been found after gadolinium exposure in all three trimesters. MRI during pregnancy for staging of locoregional spread has been described by Zanetta and colleagues in 6 patients] and also Balleyguier and colleagues in 12 patients. MRI features of cervical cancer in pregnant patients were comparable to the nonpregnant patient, and allowed for tailored treatment planning. A good correlation between MRI findings and pathology specimens was also found. Some prospective studies have shown that transrectal or transvaginal ultrasound is comparable to the diagnostic accuracy of MRI. If an ultrasound expert is available, this can be a good alternative to MRI during pregnancy.

The clinical value of serum tumour markers for cervical cancer in nonpregnant patients is questionable. Also, during pregnancy, the value of tumour markers is limited, and the physiological circulating levels throughout gestation have not been well studied. Maternal serum levels of squamous cell carcinoma antigen have been reported in two studies to date, with rising levels in the third trimester, although mean levels remained below the cutoff throughout the entire pregnancy. The management is based upon evidence from randomized trials in nonpregnant women, findings from observational studies of pregnant women, and the unique medical and ethical considerations underlying each individual case. Owing to the rarity of the disease and the complexity of all the factors that have been taken into consideration standardization of treatment is difficult. Treatment should be individualized and based on the stage of cancer, histology, gestational age, the woman's desire to continue pregnancy, and the risks of modifying or delaying therapy during pregnancy. Several clinical practice guidelines as well as a Lancet series paper have been published in an attempt to reach a consensus on treatment options during pregnancy. Traditionally, treatment of cervical cancer during pregnancy was avoided: the usual course of action was termination of pregnancy during the first two trimesters, or delay of treatment until foetal maturity in the third trimester, followed by standard treatment postpartum. In the last decade, pregnancy preservation and treatment during pregnancy has become more common in pregnancy. Herewith we report a rare case of cervical carcinoma.

Female 27 years old, married for four years, para 2, presented to outpatient department in katihar medical college and hospital complaining of vague abdominal pain. Admitted as first stage of labour, later proved not to be in labour. Her medical history was reviewed and an ultrasound examination of the fetus and of the cervix was done. In her previous pregnancy she delivered vaginally at term and had no complications. She had no ongoing medical problems. The current baby was normally grown and no gross physical abnormalities were seen within the limits of an anatomical survey for this gestational age. The cervix measured 40 mm in length; no obvious adnexal abnormalities were seen, appreciated gestational age was 37 weeks. Per vaginal examination and cervical assessment showed no apparent

vaginal bleeding or discharge, vagina was healthy and moist, vulva normal. Cervix was central, firm, nodular, hard, long (2 cm), and the os was closed. Per speculum examination confirmed the above findings; the large cervix with reddish ulcerative cervical canal which did not bleed on touch was found.



Examination under anaesthesia was done and showed that parametrium and pouch of Douglas' were free. There was no local metastases in the vagina or inguinal lymph nodes (stage 1a). Per rectum examination showed that the sphincters were intact, normal mucosa and there were no features of local spread. Punch biopsy was taken for histopathology. The result was well differentiated squamous cell carcinoma. General investigations showed no abnormality except low haemoglobin value (9gm/dl). Cesarean section was done, proceeding to total abdominal hysterectomy and bilateralsalpingoophorectomy. An upper segment uterine incision was given to avoid the tumor. A 2.5 kg viable baby was delivered, cried immediately. Apgar score in 1, 5, 10 minutes were within normal.

Intra-operative findings showed that there were no parametrium, bladder, uterosacral ligament involvements. There was no ascites and no lymph nodes involvement. Vaginal stump was closed by purse string and haemostasis secured. Estimated blood loss was 600 ml. The postoperative period was uneventful, and the patient was discharged with her baby on 10th postoperative day in good health. The histopathology report staged the cervical cancer as FIGO stage (1a1): Stromal invasion measured 3 mm in depth and 6 mm in lateral spread. Ovaries, tubes and uterus were unremarkable. The patient was referred to Mahavir cancer sansthan for further management, where she received 2 cycle of radiation and chemotherapy. Thereafter she discontinued the treatment.

DISCUSSION

Invasive cervical cancer during pregnancy is rare. The present study and review of the literature suggest that pregnancy does not seem to influence the prognosis of cervical cancer. Delayed treatment could be proposed to selected patients diagnosed at the end of the second trimester or at the beginning of the third trimester, with a small tumor (<2 cm) and negative nodes, after a multidisciplinary approach. In his issue Germann et al. 14 describe a series of 21 cases of cervical cancer managed during pregnancy or the postpartum period. They point out that, despite numerous publications, questions remain regarding cervical cancer in pregnancy. What is the impact of pregnancy on the stage at diagnosis? Does pregnancy adversely affect prognosis? What is the consequence of planned delay of treatment so the pregnancy can be continued to a viable gestation? What is the most appropriate treatment? Regarding stage at diagnosis, it is noted that in this study microinvasive disease is excluded, and yet still 71% were stage I; 76% were asymptomatic but it is not reported how many cases were diagnosed by smear. Pregnancy offers an opportunity for cervical screening but also brings challenges for early diagnosis.

Colposcopy is technically more difficult, the complication rate following biopsy is higher, and further, vaginal bleeding caused by cervical cancer may go undiagnosed due to assumptions about pregnancy related causes. However, although some women may have a delayed diagnosis in pregnancy, the data in this paper and previous reports would generally suggest that stage is not affected adversely by pregnancy and may even be improved. Should invasive carcinoma be discovered in early pregnancy and thought to be unsuitable for primary surgical therapy, termination of the pregnancy is usually carried out with the method depending on the gestational age and is followed by radiotherapy. Certain patients with early stages of disease may be treated primarily.

With radical hysterectomy and pelvic lymphadenectomy. In contrast, our patient was treated by total abdominal hysterectomy and bilateral salpingo-oophorectomy dictated by our trend since the involvement of pelvic lymph nodes is expected to be rare (1%). If the carcinoma is discovered in the later weeks of pregnancy, a delay in treatment is considered permissible to allow for viability of the fetus. For those patients diagnosed in the latter stage of pregnancy with a viable fetus, delivery by caesarean section is usually recommended although studies have not shown that vaginal

delivery has produced a higher morbidity or decreased survival in patients delivered by this way. In summary, cervical cancer remains an important but rare condition in pregnancy. The key to further limitation of mortality and morbidity from this condition is cervical screening. However, cases will still occur. Current data suggest that pregnancy does not adversely affect stage at diagnosis or prognosis. However, even with the further cases added in this issue, there are inadequate data to advise women from an evidence based on whether delay of treatment to facilitate delivery is safe, and there are almost no data upon which to base advice to women with disease beyond stage 1b. Treatment should be multidisciplinary and individualised following careful counseling. Further understanding of the natural history of cervical cancer is required. The collaborative collection of data relating to treatment and outcome, as advocated by the authors, is strongly encouraged.

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