



Endometrial carcinoma in a young patient - first suspected at the time of evaluation for infertility

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Abstract : Among gynaecological cancers, endometrial cancer is encountered more frequently in recent times. It accounts for 20-25 percentage of all cancers in the developed countries. But ,in developing countries like India, the incidence has remained as low as 5-7 percentage of all genital cancers. Cervical cancer continues to predominant and is seen in 1.8 per 100,000 populations. The peak incidence of endometrial cancer in the age group 55 to 70 years, is 20-25 percentage. Only 5 percentage develop in women below the age of 45 years, usually they are well differentiated with good prognosis rate. This case report discusses about a 26 years old young lady who was accidentally diagnosed with Endometrial Carcinoma (Stage Ia), during evaluation for primary infertility. Staging laprotomy with Total Abdominal Hysterectomy, bilateral salpingo oophorectomy and bilateral pelvic lymphadenectomy was done successfully. Post operatively she was given adjuvant vault brachytherapy. Now patient is on regular follow up.

Keyword : Infertility, endometrial adenocarcinoma, surgery, radiotherapy

INTRODUCTION:

Adenocarcinoma of the endometrium is a rare condition in women under 40 years of age. However, patients with anovulatory polycystic ovarian syndrome are at risk of developing endometrial cancer, due to unopposed and prolonged effect of estrogen on the endometrium. Risk factors for endometrial cancer are nulliparity, low parity, Polycystic ovarian syndrome, anovulatory cycles, early menarche, late menopause, functioning ovarian tumours, obesity, HT, DM, Hyperlipidemia ,Tamoxifen, hormone replacement therapy, genetic factors like Lynch II syndrome. Meirou & Schenker (1996) recently analysed all case reports and epidemiological studies examining the link between infertility and endometrial cancer, it was showed that 50% of all subfertile female patients, diagnosed as having 'unexplained' infertility were subsequently found to have ovulatory dysfunction, similar to that of PCOS. In this case report we emphasis the importance of high level of suspicion of endometrial disease in such patients and discuss the various treatment options and their drawbacks.

CASE REPORT:

A 26 years old young lady, who was married for 2 years and was anxious to conceive, had come to our OPD for investigation and treatment. Her menarche had been at the age of 14 years and her menstrual cycles were infrequent and irregular for past 4 years, for which no treatment was taken. No History of post coital bleeding. No other specific complaints. Neither she nor any other member of her family had diabetes or HT. Initially, patient was evaluated for infertility. On examination, she was moderately built, not obese, not hirsute. Abdomino Pelvic examination was normal and her recent Pap smear test had been negative for SIL. Blood tests for thyroid function, random glucose, day 3 FSH, LH, S. prolactin and testosterone were within normal limits. Chest X ray showed no evidence of Tuberculosis. A transabdominal ultrasound scan taken on day 4 of her menstrual cycle showed endometrial thickness of 5 mm. Both tubes and ovaries were normal. Hysterosalpingogram showed spill in both the tubes. Since all investigations were within normal limits, patient was advised to take folic acid and was asked to review on day 2 of next cycle for ovulation induction. The patient presented with complaints of 40 days of amenorrhea, followed by profuse bleeding with clots, for the past 2 days. Urine pregnancy test was negative. Abdomino pelvic examination did not reveal any abnormalities. A transvaginal ultrasonogram was done to rule out early pregnancy complications. It showed an endometrial thickness of 13mm. Serum Beta HCG was undetectable. Since patient had similar history in the past an endometrial biopsy was planned as a part of the protocol for evaluation for AUB. The Histopathology report showed, grade 1 well differentiated endometrial adenocarcinoma. MRI abdomen and pelvis was done, which showed myometrial invasion of <50% suggestive of? Endometrial Cancer. There was no lymphadenopathy. Both tubes and ovaries were normal. Patient was counselled about her condition and advantages and disadvantages of both conservative and surgical management. For fear of recurrence, she opted for surgery. We proceeded with staging laprotomy with total abdominal hysterectomy, bilateral Salpingo oophorectomy with bilateral lymphadenectomy. Post operative histopathology report confirmed the presence of 'Endometrial adenocarcinoma

FIGO stage Ia 1 (<50% myometrial invasion) with no evidence of lymph node involvement. Omentum and peritoneal fluid was negative for malignancy. Post operatively, she was given adjuvant vault brachytherapy, 6 weeks after the surgery to prevent local metastasis. She had completed 4 cycles of radiotherapy. She was advised follow up every 3 month for the first two years. Now, the patient is healthy and is on with regular follow up.



Fig 1: Hysterectomy Specimen

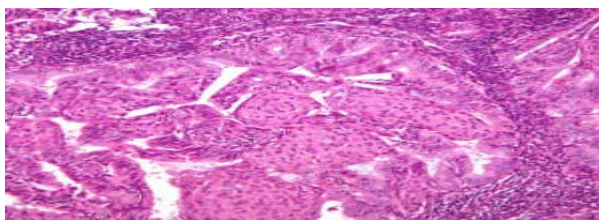


Fig 2: Histopathology showing Endometrial Adenocarcinoma

DISCUSSION:

This case report illustrates that young infertile women with anovulatory cycles are at risk of developing endometrial cancer. In anovulatory cycles, frequently seen among women with PCOS, little or no progesterone is produced. Yet, estrogen values may be higher than during normal cycle (Kelsey et al 1982). Exposure to estrogen without sufficient exposure to progesterone, appears to be one of the major etiological factors in cancer of corpus uteri (Gambrell 1984). Estrogen has a growth stimulating effect on the endometrium. This can produce a progression of changes from benign proliferation to atypical hyperplasia and adenocarcinoma. On the other hand, progesterone induces regular sloughing of the endometrium, thereby removing endometrial tissue and reducing the risk of atypical hyperplasia and endometrial cancer. Hormonal therapy is typically reserved for patients with complex atypical hyperplasia and selected patients with well differentiated endometrial carcinoma desiring fertility preservation. In a 2004 metanalysis, which included 27 articles with a combined total of 81 patients, RAMIREZ et al reported a comprehensive review of hormonal treatment of grade I endometrial cancer. A variety of progestational agents were utilized with an overall response rate of 76% and recurrence rate was 28%. Progestin therapy with megestrol acetate (40-160 mg per day) is probably the most reliable treatment.

A patient with atypical hyperplasia, on progesterone therapy is monitored with periodic endometrial biopsy and transvaginal ultrasound. This is mandatory because to detect undiagnosed cancer in 25% of cases, progression to cancer in 29% of cases & high recurrence rate after treatment. Appropriate patient selection & exclusion criteria remained undefined. Ovarian conservation is a reasonable consideration in young patients to avoid surgical menopause & its associated morbidities. However synchronous ovarian carcinoma have been reported in up to 25% of young women with endometrial carcinoma. Estrogen therapy can be given to the patients in the absence of other contraindications. One should also take into consideration prognostic indicators such as depth of invasion, grade and stage when deciding to administer estrogen therapy. Symptoms of vaginal dryness & dyspareunia may

be treated with topical estrogen. Symptomatic relief of hot flushes can be achieved by prescribing progestins or non hormonal agents such as clonidine, venlafaxine. To prevent vault recurrence post operative adjuvant vault brachytherapy is given. Dose of 6000 – 7000 cGy is delivered over a period of 6 weeks. Patient should be followed up every 3 to 4 month during first 2 years, every 6 months during next 2 years and thereafter annually.

SUMMARY

Endometrial carcinoma in patients less than 40 years of age is uncommon. Most of these tumors are associated with estrogen excess. They are usually low grade endometrial adenocarcinoma that present at low stages, with excellent prognosis. Given the infertility sparing concerns, conservative therapy with hormones is a reasonable option for selected patients, until child bearing is completed. This carries a risk of recurrence. Hence these patients should be followed up with serial endometrial sampling. Hysterectomy should be considered after completion of child bearing. Ovarian preservation can be considered to avoid surgical menopause. However synchronous ovarian carcinoma makes it mandatory to remove ovaries during surgery.

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