Short Communication

One case of leiomyosarcoma of the uterus seen in Lagos State University Teaching Hospital, Nigeria

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Concerns expressed about the increasing incidence of malignant transformation of tumours worldwide. One of such tumours is leiomyosarcoma arising from leiomyoma of the uterus. Although, a rare condition, it should be considered as a differential diagnosis in a menopausal women with evidence of benign vaginal discharge bloody or non bloody in this environment. We report the case of a 63 years old mult-gravida woman with evidence of benign vaginal bleeding seen in the Lagos State Teaching Hospital.

Key words: Leiomyosarcoma, Nigerian woman, endometrial biopsy, chemotherapy.

INTRODUCTION

Concern has been expressed about the increasing incidence of malignant transformation of tumours worldwide. Sarcoma of the uterus accounts for less than 1% of female genital tract malignancies/tumours (Novak et al., 1977; Forney and Buschbaum, 1981; Parker et al., 1994) and 2 to 5% of all uterine malignancies (Forney and Buschbaum, 1981). These tumour arises from 2 different tissues types, mainly from myometrial muscles in the case of a leiomyosarcomas and the endometrial epithelium as in case of both the mesodermal (mullerian) and stromal sarcomas. However, the main etiological factor implicated in 10 to 25% of these sarcomas is prior history of pelvic radiation therapy, which is often indicated for benign uterine bleeding 5 to 25 year’s earlier (National Cancer Institute, 2007).

The true incidence of malignant transformation of leiomyoma is difficult to determine worldwide, because leiomyomas are common. But, malignant leiomyosarcomas (LMS) though rare, can arise in de novo without coexisting leiomyomas (Phillips, 2007). Although, the incidence is usually between 0.1 - 0.5 percent, with about 5 - 10% of the LMSs, reported to originate in Leiomyomas (Cotran et al., 1994). They also make up to 35 - 40% of uterine sarcomas occurring between ages 25 - 75 years with a mean incidence of age 50 years (Ezinger et al., 1988; Cotran et al., 1994). Study has shown that there is another slow-growing variant of LMS called the benign metastasizing leiomyomas which becomes clinically apparent at a young age and progresses with a low velocity (Kayser et al., 2000).

Most women with fibroids are usually asymptomatic, except in 10 - 20% of patients, who will often times require treatment. However, the clinical presentations will depend on the location, size, and number of the fibroids and usually include the following: abnormal uterine bleeding, pressure symptoms and abdominal discomfort among others.

This study is aim to review and discuss the occurrence of Leiomyosarcomas of the uterus, rare condition that appears to be on the increase as a differential diagnoses of vaginal discharge in this environment among other conditions.

CASE HISTORY

A 63 year old gravida 12, Para 12 + 0,10 alive Nigerian female patient presented at the gynaecological out-patient clinic of the hospital with a one month history of watery vaginal discharge, abdominal swelling, weight loss and waist pain. She attained menarche at 12 years, her first coital experience was at 17 years of age, and has had only one sexual partner with her Last Menstrual Period (LMP), being 8 years ago prior to presentation.

She is also a widow of 5 years and had no past history of any contraceptive usage. Her general physical examination was uneventful and showed no abnormality with essentially normal cardio-
vascular status; a Blood Pressure (BP) of 130/80 mmHg and a pulse rate (PR) of 84 beats/min.

Vaginal examination revealed a bulky 22 week size, non-tender uterus and with a creamy discharge on the examining gloved fingers. In the outpatient clinic, an endometrial biopsy was earlier done on the patient and the histopathological report revealed evidence of "malignant mesodermal tumour of the uterus".

Based on these histopathological findings, she was then worked up for surgery with the following basic investigations ordered for. Which include, full blood count (FBC), fasting blood sugar (FBS), and Electrolyte, urea and creatinine (E/U/Cr), Chest X-ray and Intravenous Urography (IVU) with result stated below.

The haematological investigations done revealed a packed cell volume (PCV) of 38%, white blood cell count (WBC) of 6000/ cm³, differential counts were 55% neutrophils, 50% lymphocytes, 3% eosinophils and 2% monocytes. Blood film appeared essentially normal with adequate Platelets seen.

Fasting blood sugar of 68 mg/dl, ECG showed sinus rhythm and essentially normal while the E/U/Cr was essentially normal. The Chest X-ray and Intravenous Urography (IVU) done were normal.

At laparotomy, no evidence of peritoneal effusion was seen; no omental adhesion and no seedling on peritoneal wall were noted. A uterus with 26 weeks in size with surface smooth consistency and morphologically normal adnexae were seen. The pelvis was clean and tumour staged as stage 1 according to the FIGO classification.

A Total Abdominal Hysterectomy and Bilateral Salpingo-oophorectomy with removal of cuff of vagina were done along with omental biopsy. All specimens taken were later sent for histopathology. Histopathological report of the uterus revealed Leiomyosarcoma with no co-existing fibroid. The tubes, ovaries and omentum were normal with no evidence of tumour infiltrations.

Post-operatively, the patient was given chemotherapy using Dactinomycin-500 mg, Cyclophosphamide-500 mg, and Vincritine sulphate-1 mg, over three courses. Both the pre- and post chemotherapy blood profiles of the patient were within normal values. Patient having made good recovery and was later followed up at the gynae-cological outpatient clinic.

DISCUSSION

The patient presented fall within the incidence age limit of 25 to 75 years. There was no histological evidence of Leiomyoma preoperatively, indicating that the condition probably developed de novo (Philips, 2007). On the contrary, preoperative pelvic ultrasound scan diagnosis revealed evidence of Leiomyoma.

However, for some centres where the facility exists, radiologists have advocated the usefulness of color and pulsed Doppler ultrasonography for the pre-operative differential diagnosis of uterine sarcoma (Hata et al., 1997). Also more recently, using a combination of a magnetic resonance imaging (MRI) and serum dehydrogenase (LDH) enzymes estimation, one can reliably confirmed the diagnosis of uterine sarcoma without any surgery (www.friboidssecondopinion.com, 2007).

Abnormal uterine bleeding is the most common symptom of LMSs, occurring in over 60% of patients; 50% describe some type of abdominal pain or discomfort; 30% of the patients complain of gastrointestinal or genitourinary symptoms (Cotran et al., 1994). The patient presented complained of watery vagina discharge with increasing abdominal swelling. The latter symptom is reported in about 10% of cases of LMSs (Ezinger et al., 1988; Cotran et al., 1994).

Dilatation and curettage is often said not to be helpful in establishing the diagnosis except when the sarcoma is protruding through the cervical os, in this case, a biopsy may prove conclusive (Novak et al., 1977). The best definitive curative treatment when the tumour is contained within the uterus is surgery, an abdominal hysterectomy and bilateral salpingo-oophorectomy with taking of the upper third of vagina (www.medencyclopedia.com, 2007; National Cancer Institute, 2007). This was done in the patient presented. However, the operation can be extensive depending on the staging of the tumours.

The 5-year survival rate for patients with stage I tumour, which is confined to the corpus as seen in this case is approximately, 50% (20 - 63%) versus 0 to 20% for the remaining tumour stages (II to IV). According to study carried out by the Gynecologic Oncology Group, the only significant prognostic factor which is related to progression-free interval of the sarcomas is the mitotic count/index. However, the best prognostic feature is dependent on the extent of the disease at the time of diagnosis/Laparotomy which was assessed in the case presented (Ezinger et al., 1988; Major et al, 1993; Cotran et al., 1994).

For Leiomyosarcomas, others have considered tumor size as the most important prognostic factor; such that patients with tumors greater than 5.0 centimeters in maximum diameter have a poor prognosis (Evans et al., 1988). However, for Leiomyosarcomas when compared with other carcinosarcomas, while making adjustment for the prognostic factors tend to be more aggressive with a poorer prognosis than others (Oláh et al, 1992).

Other modalities of treatment include chemotherapy and radiotherapy. A number of trials using chemotherapy have been undertaken with good result, and the case presented also confirmed this. However, the value of pelvic radiation therapy is not well established.

Leiomyosarcomas ideally should be managed in a multidisciplinary group at an oncology centre (www.medencyclopedia.com, 2007); but the peculiarity of our environment has inclined us to adopt the above management regime for this case. However, surgery with radiation is the commonest treatment regime available in this environment. Furthermore, the use of Positron emission radiation is now a standard choice in many Oncology centres worldwide (Valk et al., 1995).

After extensive literature review, non-randomized clinical trial studies have shown the effectiveness of adjuvant chemotherapy with or without radiotherapy post surgery (Piver et al., 1988; Peters et al., 1989). Hence, chemotherapy was given as adjunct to the surgery. However, it is worth to note that in a randomized trial, the effectiveness of adjuvant chemotherapy following complete resection (stage I and II) has not been fully established (Omura et al., 1985). But, it gratifying to know that thirty month post surgery, the patient is hale and healthy, now living a
fulfilled life.

Conclusion

This study has shown that Leiomyosarcomas of the uterus, though rare, should be considered as a differential diagnosis in postmenopausal women with vaginal discharge-bloody or non-bloody especially in our environment.

REFERENCES


