

Case Report

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An unusual location of uterine myoma in the Pouch of Douglas in a grandmultiparous woman in Kogi State Specialist Hospital, Lokoja, Nigeria

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Abstract

Uterine myomas are the most common benign tumors of the female genital tract. They most frequently affect the uterine myometrium, but can develop in various sites within the body. A case report of an unusual location of uterine myoma in the Pouch of Douglas (POD) in a grandmultiparous in a 36-year old woman is presented and discussed.

Keywords: Uterine myomas, unusual location, Pouch of Douglas, Laparotomy, Histopathology, Diagnosis, treatment delima

Introduction

Uterine myomas (fibroids) are the most common benign tumours of the female genital tract. They can develop in various sites within the body; they most frequently affect the uterine myometrium, arising from the neoplastic transformation of single smooth muscle cells. It usually appears as well circumscribed firm tumours with a characteristic white-whorled appearance on cross section [1].

Myomas is paler than the surrounding myometrium and usually a very sharp line of demarcation between the uterine myoma and the normal uterine muscle [1]. Histologically, uterine myoma is typically composed of varying proportions of spindled smooth muscle cells and fibroblasts. The sizes of these myomas vary greatly and uterine enlargement is equated to the pregnant uterus. Unlike the pregnant uterus, however, it is usually irregular in shape. Myomas may be single but are commonly multiple and majority are found in the corpus (body) of the uterus and may be serosal, intramural, or sub mucous. The benign growths may also occur in the cervix, uterine ligaments and ovaries.

Further classification or description of uterine myoma includes pedunculated Myomas, when a myoma is attached to the normal myometrium of the uterus by a stalk [3] and the rare parasitic myomas when a myoma

has developed an alternative blood supply having separated from the uterus and become attached to another structure in the pelvis [1].

Incidence of myomas is uncertain as many women with these tumours are asymptomatic. Prevalence rate tends to be based on rate of diagnosis in symptomatic individuals and following pathologic assessment of hysterectomy specimens. It is likely that there is significantly underestimation of the true prevalence of these uterine lesions. However, these common tumours are clinically apparent in 20-30% of women during reproductive life and may be present in as many as 70% uterus removed at the time of hysterectomy [1].

There are significant racial differences in the incidence of myomas, with Afro-Caribbean women having a two-nine-fold greater risk of developing myomas. They tend to present in a younger age compared with Caucasian women and have multiple myomas, higher uterine weights and are more prone to both anaemia and severe pelvic pain [2,3].

Reproductive factors also influence the risk of myomas with reduction in incidence with increasing parity and prolonged use of oral Contraceptive pills out with teenage years, an effect which is directly proportional to the duration of pills use [4].

Environmental factors also influence the risk of myoma development. Independent of body mass index, smoking appears to decrease the risk of myoma development {5,6}

The pathophysiology of myomas remains poorly understood, however the growth of myomas is partly dependent on the ovarian steroids that act through receptors present on both myomas and myometrial cells. Malignancy in uterine myomas is extremely uncommon. Uterine myosarcoma is a disease largely occurring in seventh decade of life whereas myomas tend to occur in women 20-30 years younger [5].

It is estimated that only 20-50% of women with one or more myomas will experience symptoms which are directly attributable to myoma. However, it is not always clear why some produce symptoms and other do not [7]. The symptoms associated with myomas may be variable, ranging from mild to severe, causing distress and impinging significantly on health-related quality of life. Women usually present with menstrual problems particularly heavy menstrual bleeding, dysmenorrhoea, dragging sensation, abdominal swelling or urinary symptoms [7]. Myomas can also be diagnosed accidentally during routine cervical screening or gynaecological assessment for any reason or simply during pregnancy.

The diagnosis of uterine myomas is often clinical with an enlarged uterus and present as pelvic mass on abdominal and vaginal examinations. The differential are ovarian mass, hence ultrasound or imaging can help in the size, location and multiplicity of the uterine myoma.

The treatment of myomas depends on the symptoms and maintenance of reproductive carrier. The cure for uterine myomas is hysterectomy, however to preserve fertility, myomectomy is another mode of treatment. Other surgical intervention is uterine artery embolization and laser ablation. Medical treatments of uterine myomas do not eradicate it but does reduce the size. Uterine myoma is not a direct cause of infertility but often found in women with infertility. We report a case of the unusual location of myoma in the POD in a multiparous woman.

Case Report

Mrs A.A is a 36-year old para 5+0, all alive house wife whose last child birth was three years prior to presentation and all the deliveries were spontaneous vaginal delivery with no postpartum complications. She presented through the gynaecological clinic of Kogi State Specialist Hospital, Lokoja with complaint of progressive painless lower abdominal swelling of two years duration. The swelling was noticed 2 years after her last child birth. She had similar swelling after her second delivery for which she had abdominal surgery for left ovarian cyst (left ovarian cystectomy) in a peripheral hospital however the histology report was

not made available but claimed it was a benign ovarian cyst. She had three vaginal deliveries after the said surgery. No history of associated weight loss, loss of appetite or change of bowel habits.

The abdominal finding on examination was a suprapubic mass of 32 cm size, central, mobile, firm and smooth surface. The mass was not tender as well. The abdomino-pelvic scan gave impression of recurrent left ovarian mass measuring 12x10 cm and cystic with solid components.

The patient was counselled for a repeat exploratory laparotomy and she consented. Routine pre-operation investigations were done and the anaesthetist considered her fit for the surgery. The intra operative findings were that of normal size uterus and fallopian tubes with ovaries as seen in Figure 1.



Figure 1: Normal size uterus and ovaries held with the thumb and index fingers

Other intra-operative finding includes a huge broad based mass in the POD extending to lower posterior part of the cervix as well as the broad ligament on both sides measuring 15cmx12cm and consisting of both solid and cystic components (Figure 2).



Figure 2: Myoma in the pouch of Douglas

The solid and cystic components were enucleated partially and the remaining was reconstituted and specimen sent for histology. The mass was confirmed to be myoma with varying degrees of degenerative changes. The patient was counselled for possible medical treatment instead of a repeat surgery and she consented

Discussion

Myoma in the POD is rare and can mimic ovarian cyst on sonography as in the case reported. This index case was confirmed histologically. Its origin is bizarre as it is located in the POD with broad base involving the serosal of the lower 1/3 of the cervix posteriorly, the ovaries and broad ligament. However, the uterus, ligaments and the ovaries appear grossly normal, but the typical characteristics of myomas, white-whorled appearance on cross-section was present except the separate circumscribed cystic loculi with clear fluid of greater than 300 ml sucked. Not surprising as the radiologist made an impression of a recurrent ovarian cyst. Although the patient claimed to have done an earlier surgery to remove the ovarian cyst, this claim was not found to be appropriate because of the inability to identify the source of the mass in a peripheral hospital outside the state capital where the surgery was said to have been carried out.

Majority of myomas are found in the body of the uterus and either serosa, intramural, or sub mucous. The benign growth may also occur in the cervix, uterine ligament and ovary. This index case was found in the POD and attached to lower 1/3 of the cervix posteriorly. It is possible to have been a parasitic type that is very rare and can be attached to the POD and partly to the lower part of the cervix posteriorly.

Although myoma is common in women of reproductive age, it is usually not common in multiparous women as seen in this index case. Reproductive factor also influences the risk of myoma which decreases in incidence with increasing parity and prolonged use of oral contraceptive pills [4]. The index case is of high parity (para5-all alive) at the age of 36 years. She was not on any hormonal contraception rather she used withdrawal method. This patient has BMI of less than 25, which did not agree with association of myomas and obesity [5,6].

Heavy menstrual bleeding is the commonest symptoms of patient with uterine myoma which did not occur in this patient probably due to location of the myoma in the POD and the uterus was of normal size (Figure 1).

Conclusion

A case of unusual location of myoma in the POD which was misdiagnosed as ovarian cyst sonographically was confirmed histologically in this report. Myomas are usually located within the uterine body; however other sites are possible hence high index of suspicion is required when seen in an unusual location when all its characteristics are present irrespective of the location.

List of abbreviations

POD – Pouch of Douglas

Declarations

Ethical approval

None provided.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

No conflict of interest associated with this work.

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Contribution of Authors

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