

# Right Sided Mucinous Cystadenoma In A Nineteen Year Old Nigerian Nullipara: A Case Report

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## Abstract

The ovary is a frequent site of neoplastic tumours that could be either benign or malignant. This reports a case of a nineteen-year-old nullipara who presented with a three months history of increasing non-painful abdominal swelling. The mass was excised at laparotomy, unilateral salpingoophorectomy performed and histopathological diagnosis was mucinous cystadenoma. The patient's postoperative course was uneventful. Mucinous cystadenoma is rare before puberty and after menopause although it can occur at any age.

## INTRODUCTION

Tumours of the ovary are common forms of neoplasia in women. Among cancers of the female genital tract, the incidence of ovarian cancer ranks below only to carcinoma of the cervix and endometrium<sup>1</sup>. The ovary is unique in the range and variety of tumours that may arise from it and malignant tumours from other primary sites that can metastasize to it<sup>2</sup>. Little is known about the trends or international variations in the occurrence of the various histological types of ovarian tumours<sup>3,4</sup>. Studies are hampered by differences in diagnostic criteria used over a period of from place to place<sup>3</sup>. The incidence of ovarian cancer is low in Asia, Africa, and Latin America<sup>4</sup>.

The second most common epithelial tumour of the ovary is the mucinous type<sup>5</sup>. Mucinous cystadenoma accounts for 10-20% of all ovarian tumours<sup>5,6</sup>. The recurrence of mucinous cystadenoma is very rare after complete excision.

Benign neoplasm of the ovaries are of epithelial origin in 50%, of all mucinous neoplasm 77-87% is classified as benign. They tend to be cystic in nature and 76% of mucinous tumours are multinodular while 24% are uninodular<sup>5</sup>.

The risk for ovarian cancer is much less clear than other tumours. Risk factors are nulliparity and family history. They can occur at any age but are common in childhood<sup>7</sup>. They occur principally in the middle adult life and are rare before puberty and after menopause<sup>8</sup>. The preservation of a normal ovary is well grounded in a younger woman.

This report discusses a patient who underwent a right salpingoophorectomy for right ovarian mucinous cystadenoma.

## CASE PRESENTATION

A nineteen-year-old virgin nullipara, an undergraduate presented at the outpatient department of General Hospital, Aliero, Kebbi State, Nigeria with a three months history of increasing abdominal swelling. There was no history of menstrual irregularity, weight loss, vagina discharge, urinary symptoms, bowel symptoms, or dyspnoea.

She attained menarche at twelve years with a regular 28-day cycle that flows for five days with associated dysmenorrhoea.

On physical examination, her weight was 55kg, height 1.62m with well-formed adult female breast. She was neither pale, febrile nor jaundiced. She had an intra-abdominal mass of 26 weeks size, which was mobile and tender. There was no evidence of ascitis.

Examination of the genitalia showed a normal vulva with an intact hymen for which a digital vaginal examination was suspended. Digital rectal examination revealed right adnexa mass.

The results of some investigations showed a negative pregnancy test and packed cell volume of 30%. The serum electrolyte, urea and creatinine, hormone and tumour marker levels were within normal ranges.

Abdominopelvic ultrasonography revealed a thick walled cystic right ovarian mass measuring 80mm by 120mm with the lower layers showing fine internal echoes. The mass was separate from displaced urinary bladder. Cystourethrogram showed a urinary bladder with extrinsic pressure effect superiorly due to a pelvic mass.

A diagnosis of a right ovarian mass was made. The patient was counselled and prepared for surgery. Informed consent was obtained. Foley's urethra was passed for urine output monitoring. Under general anaesthesia, preincisional ceftriazone and metronidazole was administered laparotomy was preformed with a midline subumbilical incision. The intra-operative findings were a huge right smooth surface shiny ovarian mass with minimal adhesions. The right fallopian tube was buried in the ovarian cyst. The left adnexa and uterus were normal. There was no ascitis. Right salpingoophorectomy was performed. The mass excised and weighed 4kg. Histology showed tall columnar epithelium with gelatinous glycoproteinous secretion and basal nuclei, which are features of mucinous cystadenoma. The estimated blood loss was 500mls. The patient made an uneventful recovery and was discharged home on the ninth postoperative day.

### **DISCUSSION**

Mucinous tumours are the commonest large ovarian tumours<sup>7</sup>. They grow into enormous size and are the largest gynaecological tumours<sup>9</sup>. They may macroscopically reach massive dimensions like in this patient it weighed 4kg. They are usually asymptomatic and the patient presents with abdominal swelling because of its size. Depending on its size, if very large produces pressures symptoms such as increased urinary frequency, dull abdominal pain, respiratory embarrassment and oedema or varicosities in the lower limbs. Urinary symptoms arise from partial occlusion of the ureter at the brim of the pelvis since this obstruction leads to stasis of urine and consequent urinary tract infection.

Some gastrointestinal symptoms may be present. This patient presented with increasing abdominal distension with no pressure symptoms. Modern methods of investigation particularly ultrasonography can identify the nature of the tissue as in this case. A lining of tall columnar epithelia cells with apical mucin and the absence of cilia histologically characterize benign mucinous tumours<sup>8</sup>. Histology of the excised specimen in this patient showed features of mucinous cystadenoma.

The treatment is cystectomy by either laparotomy or

laparoscopy. Laparotomy was done in this patient. If very large, the cyst is removed intact but this may necessitate the use of very large abdominal incision. The reason for this precaution is to prevent spillage of mucinous material within the peritoneal cavity and possible development of pseudomyxoma peritonei<sup>10</sup>.

Conservative procedures such as ovarian cystectomy may be preferred in patients with ovarian tumours who desire to retain their fertility. However when faced with a huge mass saving the ovarian tissue may be difficult. In this case, the cyst was removed with the ovarian tissue and right fallopian tube that buried in it. It was difficult to shell out the cyst from the ovarian tissue. The left ovary and uterus, which was normal, was not excised.

If the cystectomy procedure is not completed thoroughly, recurrences may occur. However, in the event in which recurrence of a mucinous cystadenoma takes place after optimal excision is rare<sup>5</sup>.

In young women, suspicion of pregnancy may be very strong particularly when they are seen for the first time with lower abdominal swelling. Pregnancy test was negative in this patient.

### **CONCLUSION**

The pathology of ovarian neoplasm is one of the most complex areas of gynaecology because the ovary gives rise to a greater range and variety of tumours than does any other organ<sup>4</sup>. Even though the malignant form is less common than other gynaecological cancers, they are still the gynaecologists greater test challenge because of its mortality is one of the highest of gynaecological neoplasm. Though the malignant form of ovarian tumours are less common than other cancers their mortality is one of the gynaecological cancers. The number of diagnosis of ovarian cyst has increased with ultrasound technology<sup>11</sup>.

The finding of an ovarian cyst causes considerable anxiety for the women because a few are malignant but the vast majority of ovarian cysts are benign. Mucinous cystadenoma are benign tumours with a histological appearance similar to endocervical columnar epithelium. They are generally multiloculated and are the largest tumours found in the human body. Mucinous ovarian tumours originate from surface epithelium and are lined by tall columnar epithelium. They are large by the time the doctor is consulted. Because of its rapid growth and mucinous contents made of rich protein, the patient tends to loose weight.

The finding of an ovarian cyst causes considerable anxiety for women because a few are malignant but the vast majority of ovarian cysts are benign. Complications that can occur are torsion of the pedicle, rupture, and malignant transformation. Rupture is spontaneous or traumatic following torsion although this patient did not develop any complication.

If left untreated, some of them can become be so large extending well above the level of the umbilicus. Some patients may feel they are pregnant. The patient tends to loose weight because of its rapid growth and its mucinous contents, which are made up of rich proteins. There was no history of weight loss in this patient. In young patients with apparently benign ovarian cysts requiring removal, the conservative approach of ovarian cystectomy is advocated to enable retention of functioning ovarian tissue for endogenous hormone production and future conception <sup>12</sup>.

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