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Case Report

# Phylloides: Uncommon ulcerated breast tumor diagnosed at Singida regional referral hospital. Case report

Amri A. Mabewa [a,b], Amedeus Mushi [a,c,*], Timoth Agapit [a,b], Joyce Njile [a,b]

[a] Singida Regional Referral Hospital, Tanzania
[b] Surgical Department, Singida Regional Referral Hospital, Tanzania
[c] Laboratory Department, Singida Regional Referral Hospital, Tanzania

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ABSTRACT

Phylloides tumor is rarely diagnosed in surgical clinics. There is high chance of missing of this kind of tumor by junior surgeons as it is also rarely explained in literature and diagnosed in our locality region. Malignant phylloides are associated with a higher rate of recurrence than their benign counterparts, underlying the importance of adequate surgical margins. This is a case of a 22 years old female attended at surgical outpatient clinic with complain of swelling in the right breast for about two years. On cytological and histological investigation showed benign phylloides tumor. The excision surgery was performed where by tumor was remove. The close follow up was done as it has tendency of reoccurrence.

## 1. Introduction

Phylloides tumor is among the uncommon breast tumors to be diagnosed. The exact cause of phylloides tumor is not known yet but it has been linked to Li Fraumen Syndrome which is also rare syndrome [1].

The prevalence of phylloides tumor found to be 0.3%–0.9% of all breast neoplasm and incidence is 2.1% per million. Malignant phylloides tumor has prevalence of 1.5% making it very unlikely diagnosis [1,2].

The WHO classify phylloides tumor into three classes, where we have benign, borderline and malignant. Benign is common making up to 75% of the cases and the malignant one is rare. Histological diagnosis is of paramount importance as it determine the risk of recurrences and extent of surgery [1,3].

The main management and of treatment this tumor is surgery whereby the margin of 0.5cm–1cm is counted as adequate. There is no need for axillary clearance as the disease is not known to spread to the axillary nodes similarly no need of chemotherapy and radiotherapy as systemic spread is not known where adequate surgical excision is done. Preoperative histology or cytology study is crucial to be able differentiate the benign from malignant for proper surgical clearance [2,4].

As currently fibro-adenomas are treated more none operatively, it is important to clearly distinguish them from the phylloides tumor before one decide for not operating a so called fibro-adenoma [1,3,4].

Phylloides tumor is not given more weight in some modern medical text books may be because it is uncommon, some books has just highlights, making it not given due emphasis in raring young surgeons. Furthermore, phylloides tumor at younger age is also very rare making it unlikely for junior surgeon to suspect it. This will draw attention to clinicians, young and juniors diagnosis tumors in to ensure no missing of phylloides tumor in young women. An ulcerated phylloides tumor has also to be differentiated from carcinoma of the breast which may confuse junior surgeon.

Also this study will raise awareness in young and junior surgeons in area where there limited documented cases of phylloides tumor in young women to put an emphasis on fibroadenoma which is a differential diagnosis of the phylloides tumor. This case report has been reported in line with the SCARE 2020 criteria [5].

## 2. The case report

A 22 years old female attended at surgical outpatient clinic with complain of swelling in the right breast for about two years. The swelling was progressively increasing in size and was painful as time passes and ultimately ulcerated leading to serous-purulent discharge for about two years. On social history, not married, nor smoking, non-alcohol use, no child, no history of malignant in member for the family.

However, the mass was growing slowly prior to her visiting our

* Corresponding author. Singida Regional Referral Hospital, P.O.Box104, Tanzania.
*E-mail addresses:* amrymabewa@gmail.com (A.A. Mabewa), amedelaure@gmail.com (A. Mushi).

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hospital. Physical examination found a mass of approximately 14cm × 19cm in the right breast (see figure A and B); the boundary was clear, and the mass was hard. Additionally, no tenderness, superficial varicose veins, nipple depression, nipple discharge after squeezing the breast and lymph nodes on either side of the axilla were not detected. Bilateral mammography examination results showed a mass in the left outer upper quadrant, which showed increased shadow density and multiple calcification shadows.

The tumor look like leaf and such ulcerated mass but no axillary nodes involved. Such a tumor also is not fixed to the chest for if it had been tumor at that stage there would be lymph nodes involved and fixed. Whole surface of nipple was completely destroyed by the tumor.

On the review of other systems like Cardiovascular, respiratory, abdominal and genital urinary systems were normal.

### 2.1. Physical examination and vital sign investigation

On physical examination the patient was in pain, not pale, not febrile, and not dyspneic. The right breast was swollen, ulcerated with leaf-like mass with serous purulent discharges. The mass was not fixed, not hard and the nipple was pushed away from the mass. There was no peau-de- orange. The axillary lymph nodes were not palpable. Blood pressure were 118/75 mmHg, Pulse rate was 96 beats per minute, Oxygen saturation was 96.4%, body temperature was 37.2 °C

### 2.2. Laboratory and radiology investigations

Several laboratory and radiology investigation were performed to diagnose the diseases, to evaluate the extent of diseases, Fine needle aspiration for cytology which showed benign tumor, Full blood count which found elevation white blood cells, hemoglobin estimation were 13.9g/dl, Random blood glucose was 6.2mmol/L, Ultrasound of the breast and axilla and abdominal both found to be normal. Chest x-ray was found normal.

### 2.3. Provisional diagnosis and plan for management

The provisional diagnosis was suggested to be Phylloides tumor because of huge ulcerated breast mass, not fixed, with no lymph and the age of the patients became among suggested factor. The plan was operation for wide excision of mass.

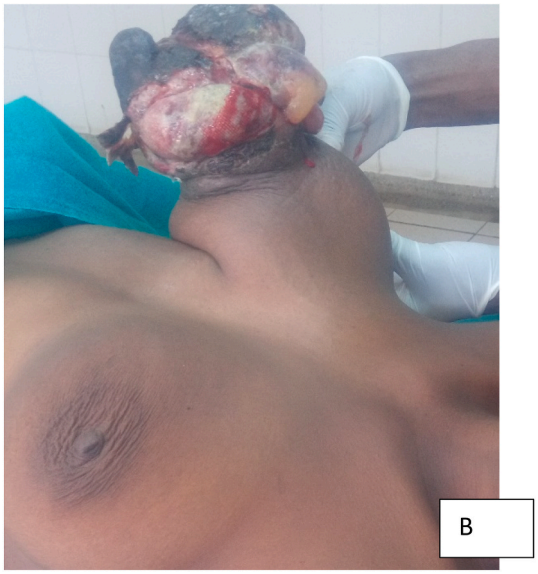


**Figure A.** Lateral view of the breast affected by tumor

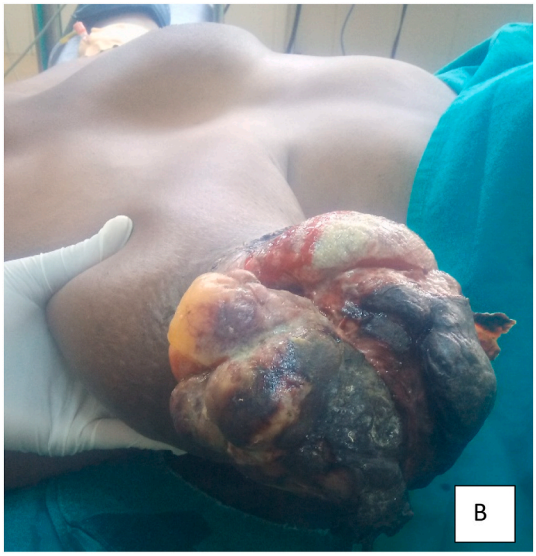


**Figure B.** Anterior view of the breast affected by tumor

### 2.4. Preoperative preparation

The patient was admitted 24hrs prior surgery to follow required procedure and investigations prior to surgery.

### 2.5. Operation procedure and success

Under general anesthesia in supine position the patient was prepared and draped, markings made where the excision was planned to be made and the operation was carried out hemostasis obtained by using electrocautery. The whole mass was removed and the defect repaired primarily.

### 2.6. Postoperative management

The IV antibiotic and other medications were administered. The whole removed mass was fixed in 10% formalin then sent to histopathology laboratory for histological investigation which the report reveals Begin Phylloides tumor.

## 3. Discussion

Diagnosis of phylloides tumor should base on clinical manifestation of the patient, radiological and histological work out, and all these have to be done meticulously to avoid labeling phylloides tumor to breast cancer for the two may have similar look but carry different treatment methods and modality. If you look the above figure A and B of our case, for a junior doctor it is tempting to call it breast cancer [2].

History taking and physical examination is vital in which one may find a swelling in the breast in a woman aged above 30 having no features of breast cancer and has passed the age for fibroadenoma. There will be no nipple retraction and the classical Peau de orange will be missing as well as axillary lymphadenopathy might be absent. A stretched skin will demonstrate dilated veins. This is compatible with our case as all features are similar.

Ulceration is not common but in developing countries where health seeking behavior is low and also economy hinder early attention to the swelling you may find an ulcerated mass which has leafy like structure as in the figure A and B above. Ulceration occurred in our case and if you consider it closely you will see it differ from breast cancer as it is leafy like as compared to the breast cancer ulcer [2,6].

Histological diagnosis is the pivotal for the diagnosis as it will give us two important things for management. First it will tell us histologically

that it is phylloides and not otherwise and second it will give malignance status of the phylloides which can be benign, borderline or malignant. For this case it was confirmed phylloides tumor and was benign [2,7].

The main stay of treatment of a benign phylloides tumor is surgery. The margin of excision is 0.5cm–1cm and this adequate and defensive for it is applicable for malignant phylloides tumor. For benign tumors follow up is of paramount importance as to note any recurrence which will point to an unnoticed malignance. For malignant tumor, after surgical excision chemotherapy and radiotherapy are still a debatable topic different centers practicing differently [1,4,6].

The main complication of the phylloides tumor treatment by surgery is breast disfigurement which at some time may need breast reconstruction. In this case however disfigurement was not significant to warrant reconstruction.

Another complication is malignant transformation of the post operation site and that is why follow up is mandatory to detect any abnormal happening. In our case the patient is followed every one month for six months and then every two month for the next six months and finally twice a year.

Recurrence is also another complication which occurs in the patient with phylloides tumor. A recurrent phylloides tumor need proper evaluation to exclude the possibility of malignance which would require operation and adjuvant treatment. A systematic review and meta-analysis study done by Lu et al. in China reported the pooled local recurrence rates for benign, borderline and malignant patients to be 8, 13 and 18%, respectively. This shows that the tendency of patients to recur locally increases with increase in aggressiveness of the tumor [1, 7].

## 4. Conclusion

Phylloides tumor is among rare breast tumors of the breast in our clinics. The main stay of treatment is surgery which is based on excision of the tumor. The surgeon should be attentive during diagnosis of tumors because there is high probability of misdiagnosis such this case. When it is benign tumor no further treatment except follow up is mandatory whereas when other methods of treatment may be needed. The phylloides tumor should be well diagnosed in the surgery clinic so as to differentiate it from breast cancer which has completely different way of treatment and management.

## Patient consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editorin-Chief of this journal on request.

## Ethical approval

This study is exempt from ethical approval at our institution, no ethical clearance required as it only involves case reports. But consent was done to patients.

## Declaration of competing interest

The authors report no declarations of interest.

## Funding

No fund granted for this study.

## Ethical approval

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## Consent

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## Author statement

**Amri A. Mabewa**: Performed the surgery and clinical evaluation, and analyzed and reviewed all medical investigation and the medical history of the patient regarding this pathology, following up the patient manuscript writing and follow up.

**Joyce Njile**: Assist in procedure, following up the patient and develop manuscript.

**Timothy Agapiti**: Anaesthesiologist following up the patient and final approval of the manuscript.

**Amedeus Mushi**: Epidemiologist and Health Laboratory scientist, performed laboratory investigation, manuscript writing and follow up.

## Registration of research studies

1. Name of the registry: **Not Applicable**
2. Unique identifying number or registration ID: **Not Applicable**
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): **Not Applicable**

## Guarantor

Amedeus Mushi

## Provenance and peer review

Not commissioned, externally peer reviewed.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.amsu.2022.103301.

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