Exophytic Phyllode Breast Tumor: a Case Report

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ABSTRACT
Phyllode breast tumor is a rare and very acute disease. The diagnosis is very hard, and histology is still the key to diagnosis. Conservative treatment with good margin excision is the gold standard. The exophytic form is rare and always malign. Here, we present a 39 years old woman with an exophytic phyllode breast tumor who had a large conservative treatment. The histopathology revealed a benign phyllode tumor grade 1. The particularity of our patient is the benign form of this exophytic tumor without metastasis and the recurrence of the tumor after the conservative treatment.

Keywords: Phyllode breast tumor, Exophytic breast tumor

1. INTRODUCTION
Phyllode breast tumor is a fibroepithelial breast tumor characterized by the presence of stromal and epithelial elements bordered by mesenchymal cells. It’s a very rare tumor which represents 0.3 to 0.5% of all breast tumors (1). The clinical and radiological symptoms are not specific. The diagnostic is based on histopathology. The exophytic form is more likely to be malignant. The growth is extremely fast compared to most tumors, for that reason, the treatment and especially the surgery must be very quick with good margin excision.

2. CASE REPORT
A 39 years old, single and nulliparous woman, who has been suffering for two months from an exophytic, fast growing mass in the left breast, measuring 8 cm / 6cm, periareolar, burgeoning and painless (Fig. 1).
The radiology (the mammography and ultrasound) classified the tumor as BIRADS 4 with suspicion of phyllode tumor (Fig. 2).
The biopsy was done, and the histopathology found a phyllode tumor grade 1. The results were confirmed after the surgery. The patient had a large conservative treatment with a good margin excision without axillary dissection (Fig. 3).
The radiotherapy and chemotherapy were not done. The evolution was marked by the recurrence of the tumor.
3. DISCUSSION

Phyllode breast tumor is a rare tumor which represents 0.3 to 0.5% of all breast tumors\(^1\) with an average age of 48 years old. The vast majority affects women. Clinically, it’s a well-circumscribed, painless, mobile and firm mass or nodule, fast growing in a large size in short period of time compared with the epithelial breast. Barely, it may be painful because of the size, the nerves excitation or the skin ulceration. The size ranges from 1 cm to 40 cm\(^2\). In our case, the tumor was painless. Larger tumor measuring more than 10 cm, called “giant phyllode tumor” is rare and represents 10% of all the phyllode tumors. It’s, most of the time, malignant\(^1\). As in the case of exophytic tumors, contrary to our patient.

There are no specific signs of phyllode tumors on radiology imaging but some presumption signs. Indeed, phyllode tumor may appear as a hypoechoic solid lobulated nodule with defined borders, heterogeneous echotexture and lack of microcalcification on ultrasound. On mammography, it corresponds to a lobulated well-circumscribed, round, uncalcified mass. On MRI, it’s a leaf-like solid segments in blood-filled cystic spaces well visualized on subtraction MRI. The key of diagnostic is histological. For that, we need a drill biopsy. Depending on the mitotic activity, the presence of stromal growth, the degree of cellular atypia, the characteristics of tumor margins and necrosis, those tumors are classified as Benign, Borderline or Malignant (20% of all phyllode tumors)\(^2\). Genetics studies (about genes responsible for cell adhesion, epidermis formation, cell proliferation) have showed that more there is chromosomal changes, the worst the histological grade is.

The metastatic rate in phyllode tumor is about 10% of cases; most of them are Borderline or Malignant\(^1\). Indeed, malignant tumor can be aggressive, fast growing, with a high level of metastasis (25% to 31%) and recurrence. Hematologic spread occurs in 22% of cases, firstly in the lungs then the liver but also in the bones, heart, pleura and soft tissues. That’s why it can be appreciated by thoracoabdominal CT. Lymphatic and axillary metastasis is very rare and has a poor prognosis. Local recurrence depends on the age, tumor size, malignancy, stromal overgrowth, mitotic activity, tumor necrosis, and most important surgical margins\(^3\). In fact, when the margins excision is inferior to 1 cm, the recurrence rate is about 15% to 20%\(^1,2\). In our case, we didn’t report any metastasis, due to the benign form of the tumor. The evolution was
marked by the recurrence of the tumor even with large marge excision. Surgery is the “gold standard,” especially conservative R0 surgery\(^4\). It consists of a wide surgical excision with margins 1–2 cm. In the past, mastectomy was the treatment of choice, but nowadays it’s only indicated in case of a recurrent or giant tumor, a tumor with bad cosmetic outcome after the conservative excision. The choice between conservative surgery and mastectomy depends then on the ratio tumor size/ the breast size and the patient’s desire. After a mastectomy, breast reconstruction may be recommended for a better life quality. Considering the size of the tumor, the age of the patient, the size of the breast and the nature of the tumor, our patient had a conservative treatment with large marge excision.

There are a lot of studies about the benefits of radiotherapy on recurrence and overall survival. Those studies have shown that radiotherapy is interesting in the case of a huge tumor, of positive margins, of stromal overgrowth. It allows a better local control. Adjuvant chemotherapy has no influence on mortality, but it can be used in case of metastasis. Hormonotherapy is inadequate because there is no expression of estrogen or progesterone receptors\(^5\).

In the case of the absence of metastasis and with a tumor inferior to 5 cm, the treatment is based on conservative surgery with radiotherapy. If the size is over 5cm, the treatment of choice is a mastectomy with radiotherapy. In the case of palpable lymph nodes (10% to 20%), a lymphadenectomy is allowed. If positive, an axillary node dissection is recommended. In the case of a no surgical extensive tumor, radiotherapy with sometimes chemotherapy is advocated. In the case of metastasis, only chemotherapy is used. The prognosis depends on the size and the stage of the tumor. There is no influence of duration symptoms and age.

4. CONCLUSION

Phyllode breast tumor is a rare disease, and the exophytic form is even rarer. The diagnosis is histological, and this form is mostly malignant. In some cases, like in our patient’s case, it might be benign. The good prognosis depends on the rapid management. Surgery and especially conservative treatment with good margin excision is the gold standard. Radiotherapy can prevent recurrences.

REFERENCES