

## CASE REPORTS

### PRIKAZI SLUČAJEVA

General Hospital Novi Pazar, Novi Pazar

Case report

*Prikaz slučaja*

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## GIANT BREAST HAMARTOMA IN A MIDDLE-AGED WOMAN - A CASE REPORT

*DŽINOVSKI HAMARTOM DOJKE KOD ŽENE SREDNJIH GODINA - PRIKAZ SLUČAJA*

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### Summary

**Introduction.** Breast hamartomas are benign breast lesions with extremely rare, but not unseen, malignant transformation. They most often occur in middle-aged women and are usually up to 5 cm in diameter. Hamartomas of about 10 cm and larger are designated as giant and they are extremely rare. **Case Report.** We present a 47-year-old female patient with a giant hamartoma of the right breast. After radiological diagnosis and core biopsy, the patient underwent surgery. Histopathological findings confirmed the diagnosis of hamartoma, without signs of malignant transformation. The postoperative course was without complications. **Conclusion.** Regardless of the fact that breast hamartoma is a benign lesion with a low potential for malignant transformation, we believe that surgical excision of these tumors is justified along with histopathological tissue processing. Recurrence is rare and the prognosis is good.

**Key words:** Giant breast hamartoma, surgery, diagnostic imaging, breast

### Sažetak

**Uvod.** Hamartomi dojke su benigne lezije dojke sa izuzetno retkom, ali ne i nemogućom malignom transformacijom. Hamartomi dojke najčešće se javljaju kod žena srednjih godina i obično su do 5 cm u prečniku. Hamartomi od oko 10 cm i veći označeni su kao džinovski i javljaju se izuzetno retko. **Prikaz slučaja.** Predstavljamo 47-godišnju pacijentkinju sa džinovskim hamartomom desne dojke. Nakon radiološke dijagnostike i *core* biopsije, pacijentkinja je operisana. Histopatološkim nalazima potvrđena je dijagnoza hamartoma, bez znakova maligne transformacije. Postoperativni tok protekao je bez komplikacija. **Zaključak.** Bez obzira na to što se radi o benignoj leziji sa malim potencijalom maligne transformacije, smatramo da je opravdana hirurška ekscizija ovih tumora uz histopatološki proces obrade tkiva. Recidiv je nizak, a prognoza je dobra.

**Ključne reči:** džinovski hamartom dojke, hirurgija, dijagnostika, dojka

### Introduction

The pathogenesis of hamartomas is still unclear. They are usually benign tumors resulting from overgrowth of normal tissue caused by a developmental error in different anatomical locations. Although most of these tumors are benign, malignant transformation may occur. Hamartomas can be found anywhere in the body, but they are most often found in the lungs, breasts, and colon [1, 2].

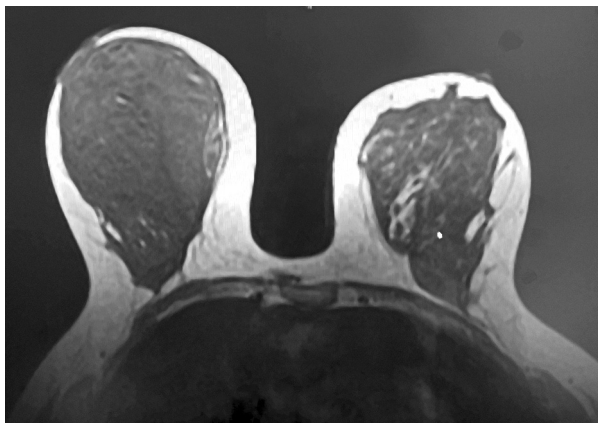
Breast hamartomas are rare, poorly defined benign breast neoplasms, mostly asymptomatic, but may also present as painless lesions with an incidence of less than 4.8% of all benign breast diseases. The average size is up to 5 cm, and they are most often found in women in the 4th and 5th decades. Giant hamartomas are rare and are mostly presented in the literature as case reports [1–4]. We present a rare case of a giant breast hamartoma in a middle-aged woman.

### Case Report

A 47-year-old healthy female patient was referred by a gynecologist for a surgical examination of a palpable tumor mass in the right breast. The patient noticed the mass a year before, but she did not see a doctor. There was no reported history of malignant diseases in the family. She had a menarche at 12 years of age; she had 3 natural births, breastfed her children for 12 months each, and denied use of hormonal therapy. The examination revealed a slightly larger right breast, with a palpable soft and mobile mass in the upper quadrants of the breast (about 13 x 13 cm), without palpable axillary lymph nodes and no signs of nipple secretion. The Breast Imaging Reporting and Database System (BI RADS 3) and mammography (BIRADS IVa) were performed and revealed a lesion in the right breast. A core biopsy was performed and the histopathological finding was a benign change (dysplasia fibrosa cystica mammae with a focus of mod-

### Abbreviations

BI-RADS – Breast Imaging Reporting and Database System  
MRI – magnetic resonance imaging



**Figure 1.** Breast magnetic resonance image  
*Slika 1. Snimak magnetne rezonancije dojke*

erate hyperplasia of the ductal epithelium). Due to a mammography finding suspicious for malignancy, a magnetic resonance imaging (MRI) of the breast was performed (**Figure 1**). The surgery was performed in accordance with the decision of the multidisciplinary team. The surgery was without complications and the mass was excised completely. The tumorous mass removed from the right breast was about 125 x 120 x 50 mm in size (**Figure 2**), solid consistency, encapsulated, whitish in cross-section, with rare cystic formations several mm in diameter.



**Figure 2.** Excised breast tumor  
*Slika 2. Uklonjeni tumor dojke*

The patient was discharged on the next day. The histopathological findings indicated a tumor consisting of a duct, a lobule, and a fibrous stroma. Pseudoangiomatic hyperplasia was observed within the connective tissue and microcalcifications within the lobules. Sclerosing adenosis and cysts were lined by apocrine epithelium. The described changes corresponded to breast hamartoma. There was no evidence of in situ or invasive malignancy.

The postoperative follow up was uneventful, with no complications. A control breast ultrasound 3 months later showed a smaller tumorous mass of about 1 x 1 cm in size, with radiologically benign characteristics, corresponding to a fibroadenoma. The patient refused further surgical treatment.

### Discussion

According to literature data, the term “breast hamartoma” was first introduced in the early 70s of the last century [1]. These tumors are slow-growing benign breast tumors composed of mesenchymal glandular, fatty and connective tissues, often asymptomatic and detected incidentally on screening mammography. They can occur at any age, often in women after the age of 35, but are most commonly seen in perimenopausal women [4]. To our knowledge, there are only a few published cases of male breast hamartoma [5]. The incidence of breast hamartoma is up to 5%, but with the introduction of mandatory breast screening programs, that percentage will increase [6].

Considering the structure of these lesions, which usually present as breast lumps with a lack of clear microscopic presentation consisting of varying amounts of epithelial elements in a fibro-fatty stroma, and the fact that they are mostly asymptomatic, histological diagnosis of the sample can often show “normal breast tissue”, which can lead to repeated core biopsies. Hamartoma contains a high percentage of fatty tissue and may contain pseudo-angiomatic stromal and epithelial changes including hyperplasia, cystic changes, and metaplasia. That is why core biopsy is not reliable, because it often shows a normal tissue [7].

During physical examinations, these lesions can easily be mistaken for other benign tumors, because they are usually soft, mobile and compressible. They can be completely or partially encapsulated and are usually 2 - 5 cm in size. Giant hamartomas are extremely rare, and those over 10 cm in diameter are usually described in the literature as individual case reports [5–8]. Due to their size, giant hamartomas can represent a psychological problem for patients, depriving them of the comfort of life with the appearance of pain due to pressure on the surrounding structures.

When they are typical, ultrasound and mammography examination are sufficient for the radiological diagnosis of hamartomas. Ultrasound images of hamartomas differ due to the different content of fatty and fibrous tissue. Diagnosis may be difficult if the

tumor is small in size with low fat content and an incomplete pseudocapsule. Hamartomas with a high percentage of fatty tissue may resemble lipomas [9]. Typical mammographic appearance of hamartoma is often described as a "slice of salami". On mammography, hamartomas with a large amount of fibrous tissue can hardly be distinguished from fibroadenomas, and those with a large percentage of fatty tissue can mimic lipomas [9]. Usually, these two diagnostic procedures are sufficient for establishing the diagnosis, but if there are doubts, especially with mammography findings, breast MRI is indicated in establishing the diagnosis.

Considering that our patient's mammography findings were marked as changes with the probability of malignancy, MRI was performed.

Breast hamartomas are not premalignant conditions and they rarely lead to malignant transformation, which is why the final histopathological diagnosis is very important. The incidence of malignancy in breast hamartoma is about 0.1% [10–13].

Therapy of giant breast hamartomas involves surgical excision and histopathological examination to verify the absence of malignant transformation, which was also done in our case.

### Conclusion

Breast hamartomas are uncommon slowly growing breast lesions and giant hamartomas are extremely rare. If imaging methods, such as ultrasonography or mammography, are unclear or suspicious for malignancy, core biopsy and magnetic resonance imaging are required. These tumors may be difficult to diagnose with imaging and core biopsy and a definitive diagnosis can be made only after surgical excision. Although hamartomas are benign lesions, considering the described cases of malignant alterations in focus hamartoma, this fact should always be considered when making the decision on therapy and follow-up of such patients.

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