Tubular Carcinoma of the Breast

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Section: Breast imaging
Imaging Technique: Mammography
Imaging Technique: Ultrasound
Case Type: Clinical Cases
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Patient: 55 years, female

Clinical History:

Surgery was performed and the histologic examination revealed a tubular carcinoma of the breast.

Imaging Findings:

A patient woman consulted her physician in follow-up of a breast lesion detected on a mammography in 1994. At this moment she had no complaints and clinical examination revealed no abnormality. A mammography and ultrasonography were performed. Because fine-needle aspiration of the small lesion was interpreted as atypical, MRI was also done.

On cranio-caudal and augmentation mammographies (1994 and 1998) there is a solitary, small (1 cm), low density, spiculated lesion without calcifications in the outer upper quadrant of a lipomatous breast. There is no obvious evolution when comparing both examinations. Ultrasonography of the breast shows presence of a small hyporeflective mass with retro-acoustic shadow.

Dynamic subtraction MR-imaging after gadolinium injection displays early enhancement of a parenchymal nodule with slow wash-out of the contrast medium.

Despite of the unequivocally normal clinical examination and the unchanged mammographic appearance on four years follow-up, findings on ultrasonography and MRI are suggestive for a well-differentiated adenocarcinoma.

Surgery was performed and the histologic examination revealed a tubular carcinoma of the breast.

Discussion:

Tubular carcinoma of the breast is a specific type of infiltrating ductal carcinoma that is defined as a tumor having at least 75% of tubular structures, which are delineated by a single layer of well-differentiated epithelial cells. In its pure form, the frequency of the tumor is less than 2% of all breast cancers. This figure is increased up to 9% in the group of the screening mammography, including a large number of asymptomatic women. In the majority of cases the lesion is very small (< 1 cm), spiculated and with or without calcifications. Less common, the tumor presents an asymmetric density or architectural distortion ("radial scar"). The value of ultrasonography is limited to the differential diagnosis between a solid and a cystic lesion. Dynamic subtraction MR-imaging might show characteristics of a malignant tumor and can be helpful to rule out malignancy in a non-palpable breast tumor. Because the distant metastatic potential is very low, mastectomy, radiation or even axillary lymph node dissection is not indicated in cases of negative surgical margins. In conclusion, tubular carcinoma should be considered in the differential diagnosis of small spiculated lesions especially because the incidence will increase since screening mammography is being performed more frequently.
Differential Diagnosis List: Tubular carcinoma

Final Diagnosis: Tubular carcinoma

References:


**Description:** there is a solitary, small (1 cm), low density, spiculated lesion without calcifications in the outer upper quadrant of a lipomatous breast. **Origin:**
Figure 2

Description: There is no obvious evolution when comparing both examinations. Origin:
Figure 3

Description: shows presence of a small hyporeflective mass with retro-acoustic shadow. Origin:
Figure 4

Description: displays early enhancement of a parenchymal nodule with slow wash-out of the contrast medium. Origin: