

Fragmented Casting Calcifications as a Potential Independent Prognostic Factor in Ductal Adenocarcinoma in Situ of the Breast

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Abstract

The aim of this study was to determine the potential role of mammographic features of breast cancer, as a possible predictor of long-term outcome.

112 breast cancer patients were included in the study. Pathologic findings on mammography were assessed using the modern classification of L. Tabar. All patients underwent a core biopsy with subsequent histological examination. In the preoperative period, breast MRI with contrast enhancement was performed. An analysis of the data and the search for correlations between the radiographic characteristics breast cancer, the tumor grade and presence of peritumoral edema on breast MRI was performed. According to the analysis, the youngest age in the group of ductal adenocarcinomas was determined in patients with fragmented casting calcifications – 29 years.

In the group of ductal carcinomas, in 33 % of cases were observed mammographic pattern 4 according to classification of L. Tabar and in 11 % of cases there was a pattern 5, while in the group of patients with fragmented casting calcifications pattern 4 was detected in 80 % of clinical observations. The proportion of patients with a high Grade tumors in the casting type was 80 %. Only in the group of patients with fragmented castings calcifications in 51 % of cases peritumoral edema on the breast MRI was observed. Fragmented casting type calcifications are a pathognomonic sign of a low-grade, ductal adenocarcinoma of the breast that occurs at a younger age and associated with the pattern 4 of breast structure by L. Tabar classification and also a predictor of peritumoral edema on breast MRI, thus can be an independent negative prognostic factor.

Key words: Breast Density, Mammography, Ductal Carcinoma in Situ, Peritumoral Oedema.

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