

## **A COMPARATIVE ANALYSIS OF CLINICOPATHOLOGICAL CHARACTERISTICS AND DISEASE FREE SURVIVAL (DFS) OUTCOMES IN BREAST CANCER PATIENTS: MAMMOGRAPHY VS SYMPTOMATIC DIAGNOSIS**

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**Introduction - Purpose :** Our goal was to compare clinicopathological characteristics and disease free survival time among breast cancer patients diagnosed using mammographic scanning or symptomatic medical advice seeking.

**Methods - Tools :** This was a retrospective analysis of 1004 cancer patients' files at two hospitals in Turkey from May 17th, 2000 to December 19th, 2016. Out of all the files, 828 participants were considered eligible for the study. Diagnosis was done using either mammographic scanning or symptomatic diagnosis considering the following parameters: age, weight at the time of diagnosis, menopause status, operation type, hormone and HER2 receptor status, pathological grade, histologic subtype, lymphovascular and perineuronal invasion status, adjuvant chemotherapy use, adjuvant herceptin use, adjuvant hormonal therapy and adjuvant radiotherapy status.

**Findings :** Additionally, compared these two groups; were noted. While breast cancer was detected by mammographic scanning in 324 patients comprising 39% of the patients, the figure for symptomatic diagnosis was 504. Whilst 60.4 % of the woman in the mamography group were in their postmenopausal phase, the figure stood at 52% for the symptomatic group, which is significant at ( $p=0.011$ ). The difference in most cases between the two methods employed were significant and appear below respectively. grade 3 patient percentage 24.2% vs. 32.9% ( $p=0.005$ ), pT1 percentage 48.5% vs. 26% ( $p=0.0001$ ), positive axillary lymph node dissection 30% vs. 53.7% ( $p=0.0001$ ), lymphovascular invasion 13.7% vs. 31.6% ( $p=0.0001$ ), perineuronal invasion 7.2% vs. 18.1% ( $p=0.0001$ ), adjuvant chemotherapy use (67% vs. 85%  $p=0.0001$ ) and hormonal treatment use (87.3% vs. 82%  $p=0.001$ ). Nevertheless, recurrence rates did not differ significantly among the two groups (12% vs. 12.6%  $p=0.4$ ). The median follow-up time was 48 months (6-185) and the median DFS time was 37 months (9-184). Prognostic parameters were also analyzed in univariate analysis, which was used to determine DFS. Pathologic staging ( $p=0.002$ ), perineuronal invasion ( $p=0.027$ ), lymphovascular invasion ( $p=0.0001$ ), hormone receptor status ( $p=0.0001$ ), triple negativity ( $p=0.016$ ), luminal A patient group ( $p=0.048$ ) parameters were found to have statistically significant effect on DFS. Diagnosis with mammographic scanning was found to have no statistically significant effect on DFS ( $p>0.05$ )

**Discussion :** Patients diagnosed with mammographic scanning were found to have lower stages, higher axillary negativity rate, postmenopausal, lower grades, lesser lymphovascular and perineuronal invasion and higher hormone receptor positivity, with lesser chemotherapy and higher hormonal treatment use. Although patients diagnosed with mammographic scanning had better prognostic parameters, recurrence rates were similar to those with symptomatic patients at the time of diagnosis. At survival analysis, recurrence rates were calculated to be similar to those of symptomatic patients' group.

**Keywords:** mammographic scanning, symptomatic medical advice seeking, disease free survival time, recurrence rates