

The basic knowledge on the possibility of employing the micronucleus test for the diagnosis of the doubts cases in the screening for the determination of breast cancer

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Introduction & Objectives: The aim of this study was to check the possibility of using the tests with micronuclei in saliva, for cases doubts, detected in screening for breast cancer

Material & Methods: A bibliographic search on Pub Med (MEDLINE) home genetic references was carried out, for articles published between Jan 1, 2000 to Dec 31, 2016, for the keywords: "micronuclei in exfoliated buccal cells in breast cancer" The key words were used in the research in free text, and with cross-referencing method application. Another search was made for the keywords; "MN in breast cancer", from Jan1 2014 until present times.

Results: Five studies have shown that in buccal cells, in breast cancer, the amount of MN were significantly higher than compared to benign cases as in six studies for the detection of micronuclei in needle aspirates ductal. Contrasting results are for MN in peripheral blood lymphocytes

Discussion: The micronuclei scoring can be used as a biomarker on fine needle aspiration cytology smears of breast cancer, while the tests in peripheral blood lymphocytes, have been known for reproducibility problems. There is also an increase of MN in exfoliated buccal mucosa cells test, hence it may be interesting to apply the MN scoring in cases of doubt, according to functional BI-RADS category 3 (probably benign), and which are sent to a successive control

Conclusions: It has been verified that MN in buccal cells, in cases of breast cancer is significantly higher than the number of MN compared to benign cases, indicating the possibility of applying this technique in cases of doubt, in oral saliva

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