

البحث الثامن

Handwriting Change In Breast Cancer Patients

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Abstract

Background

Breast cancer is the most common cancer . In the course of cancer progression, there are specific neuromuscular disturbances that directly affect coordination. Handwriting is regarded as a vital constituent when it comes to the tracing of neuromuscular coordination. The Study aimed to study handwriting analysis in female cancer breast patients trying to find simple useful, non-invasive way help in early detection and diagnosis and follow up of those patients

Methods: The study included 160 participants. The study participants were asked to write the same text (two Arabic sentences and her name in Arabic language) and draw lines in another paper, and then all handwriting samples were scanned and examined.

Results: Breast cancer patients age ranged from 30 – 76 years old with a mean \pm SD of 50.3 ± 10.5 . Patients according to Educational level parameter were 5 groups; Illiteracy eradication program, primary ,middle, secondary, graduation and post gradates were 14 (8.75 %), 10 (8.75 %), 16(10 %), (80) 50 %, 40 (25 %) respectively .

By analysis of handwriting samples: Tremor, wide spaces between words, heavy writing pressure, slop or slant of writing upward slant or down slant and heaviness of Initial and terminal strokes were observed.

After re-observation of pervious Handwriting changes and make a relation between these changes and cancer stages and lines of treatment which received, it was noticed that these changes were in samples of patient received multiple lines of treatment , in patients with metastasis or has another associated tumor as ovarian, bladder cancers or lymphoma .

Conclusion: There is no evidence of significant handwriting Changes in breast cancer samples unless patient received multiple lines of treatment , in patients with metastasis or has another associated tumor as ovarian, bladder cancers or lymphoma