Linking Histopathology and Family History in Breast Cancer

Abstract

In order to assess the prognostic value of family history (FH) of malignancies in patients afflicted with breast cancer (BC), we examined FH and histopathologic characteristics of 542 Iranian primary BC patients. Cases with distant metastasis at the time of diagnosis were excluded. Mean age of the studied population was 49 and the most common presenting stage was stage IIA followed by stage IIB.

Data on a total of 6089 relatives (1st to 4th generations with the assumption of probands as the 3rd generation) were gathered. FH of BC and other malignancies (OM) was positive in 29 and 54% of cases, respectively. The most common OM’s were gastric (67), lung (52) and uterus (47) cancers.

We found that a FH of BC does not have any significant correlation with proven prognostic factors but a history of BC among relatives at or before the age of 36 is associated with more aggressive tumours. On the other hand, although FH of OM was associated with an older age of the probands (which is
generally associated with a favourable prognosis), tumours of the cases with FH of OM had higher grades, lymphatic invasion being detected more frequently. Also we noted that the younger the age of the relatives diagnosed with cancer, the higher the stage of the probands themselves.

All together our study indicates the possibility of a relation between FH of BC and OM, and histopathologic characteristics of the probands’ tumours which would put forward FH as a prognostic factor rather than a simple risk factor in BC.

Key Words: Breast cancer - histopathology - family history - prognostic factors - other malignancies - risk factors Asian