124   Poster
Medical Astrology in the 21st Century?- Debunking the Myth for Breast Disease

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Background: Medical astrology predicts that various parts of the body are susceptible to specific diseases and occur as a result of being under the influence of the sun, moon and planets, along with the twelve astrological signs. Being born within the zodiac sign of Cancer is meant to increase your chances of developing diseases of the breast. Medical astrology continues to flourish in the 21st century, where an internet search using the words 'Medical' and 'Astrology' reveals over 1 million results. The majority of these websites offer an advice on medical conditions for a fee and remain relatively unregulated.

Materials and Methods: A cohort of 1458 patients for this retrospective analysis was derived from a combination of hospital admission data, operative theatre lists and cancer registry data from a single Health Board in Wales over a 37-month period from January 2008 to February 2011. All patients admitted for treatment of either benign or malignant breast disease were included in the dataset and then divided into 12 zodiac-based sub-groups. Statistical confirmation of the dataset was performed using the Chi-Squared test.

Results: Our results showed that the probability of developing benign breast disease born within the zodiac sign of Cancer was 7.83% (Range 6.01–10.97% for the other zodiac signs). Looking at pre-invasive malignancy, the probability for zodiac sign Cancer was 8.76% (Range 5.84–11.68% for the other zodiac signs). For malignant disease, the probability for zodiac sign Cancer was 9.25% (Range 7.71–9.91% for the other zodiac signs). The difference in breast disease occurrence between the various zodiac signs was not statistically significant at all levels.

Conclusions: The basis for medical astrology, as with astrology itself, is rooted in superstition and pseudoscience. Unfortunately, a proportion of patients presenting with breast disease still seek advice from medical astrologers, who may influence their treatment options and charge a significant fee for this. Our results show that there is no statistical difference in the incidence and prevalence of all types of breast disease, in relation to zodiac signs. The authors hope that by debunking this myth, fewer patients will be adversely affected by inappropriate advice.

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Demographic and Clinical Features of Breast Cancer in West Azerbaijan, Iran

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Background: Breast cancer (BC) is continued to be among most common cancers affecting women in Iran. This study is aimed to evaluate the demographic and clinical features of patients with BC in West Azerbaijan Province of Iran.

Materials and Method: In a retrospective study, medical records of 29 patients with BC were enrolled from oncology clinic of Imam Khomeini hospital, Urmia, Iran. They analyzed for age, Body Mass Index (BMI), comorbid diseases, family history of BC, Stage of BC and ER, PR and Her-2 receptors.

Results: Patients' Mean age was 48.27 (range: 33–69), the mean of Body Mass Index was 30.15 ± 5.8 (19.75–42.22) [missing: 5 (17.2%)].

6 patients had DM, 3 had CHF, 2had ESR D, 2 had Hepatitis B or C and 5 of them had HTN. None of them had positive family history of BC [missing: 3 (10.3%)].

12 (41.4%) BCs were in stage I/II and 11 (37.9%) in stage III/IV [missing: 6 (20.7%)]. Mean age and BMI for BCs stage I/II were 50.3/29.4 [missing: 0/3 (25%)] and for stage III/IV were 46.8/31.7 [missing: 0/1 (9.1%)]. 12 (41.3%) patients were Her2−, ER+, PR+, 8 (27.5%) were Her2−, ER−, PR−and 3 (10.3%) were Her2+, ER−, PR- [missing 6 (20.6%)].

Conclusion: More efforts focused on epidemiologic and demographic aspects of BC can help to perceiving and prevent of BC. In our study most of BC patients had overweight and obesity. Mean of BMI for patients in stages III and IV was higher in comparison to patients in stages I& II.

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The Beliefs, Knowledge, Understanding, Attitudes and Treatment Access to Breast Cancer Amongst Rural Women in Northern Nigeria

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Goal: The goal of this study is to ascertain the beliefs, knowledge, understanding, attitudes and treatment access to breast cancer among rural women in Nigeria.

Background: Breast cancer has become a popular topic in recent years with several thousands of women diagnosed to be positive every year. The availability of care/treatment upon early detection is key to survival.

Methods: An interview guide was designed specifically for this study in which 200 rural women in Northern Nigeria, age 45 and over took part in. It contained questions about beliefs, knowledge, understanding and attitudes about Breast Self-Examination (BSE), Clinical Breast Examination (CBE) and mammogram. In addition, questions assessing the variables of the Health Belief Model and health motivations also were included. The data were obtained during face-to-face interviews in the primary language of the participating woman. The interviews were transcribed and translated into English.

Results: Out of the 200 women who participated, only 1% two (2) of the participants practiced BSE monthly, 8% had undergone at least one CBE during their lives, and 91% had never had a mammogram. There were little or no access to treatment even at early detection in these rural areas causing thereby vulnerability to loss of life. Majority of these rural women (95%) said they knew little or nothing about breast cancer. While 15% of the women said detecting cancer early was important, only 3% reported that cancer could be cured. Age, education, or mother tongue showed no statistically significant relationship with the breast health practice scores. However, proficiency with the English language (p = 0.009) and number of years exposed to awareness and education (p = 0.009) had a significant relationship with the breast health practice scores. The significant explanatory factor for the variable breast health practices was a cue to action (p = 0.009).

Conclusions: The level of awareness and treatment access to breast cancer amongst Northern Nigeria's rural women is extremely low thereby making them not to engage in screening and/or detection practices. This alarming situation calls for urgent intervention of medical/health organizations to provide immediate breast cancer awareness, screening and care so as to reduce incidences or threat at early detection.

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Korean Hereditary Breast Cancer (KOHBRA) Study

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Background: Most epidemiological studies for *BRCA* mutations have been based on Western cohorts. The primary aims of the KOHBRA study are to estimate the prevalence of *BRCA1/2* mutations among Korean breast cancer patients and their families at high-risk of hereditary breast-ovarian cancer (HBOC).

Material and Methods: The KOHBRA study is a nationwide multicenter prospective cohort study identifying cases and their families. From May 2007 to October 2011, 38 centers registered in the Korean Breast Cancer Society have participated in this study and 2207 subjects have been enrolled. Eligible subjects for this study included as follows: 1) any breast cancer patient who has a family history of breast or ovarian cancer in any relative, 2) breast cancer patient without family history of breast and ovarian cancer who has early-onset breast cancer diagnosed at age 40 or less, bilateral breast cancer, breast and ovarian cancer, male breast cancer, and multiple organ cancers, and 3) family members of *BRCA1/2* mutation carriers. All participants received genetic counseling and *BRCA* genetic testing, and baseline questionnaires for identifying of epidemiologic data and blood samples for banking have been collected at the beginning of enrollment.

Results: A total of 308 mutation carriers among 1825 probands were identified. The most common mutation genes were 7708C>T for *BRCA2* (10.1%) and 509C>A, p.Y130X heterozygote (5.2%). The prevalence of *BRCA1/2* mutations among breast cancer cases with the family history of breast or ovarian cancer was 24.6%. The number of relatives who have breast or ovarian cancer is significantly associated with the prevalence of *BRCA1/2* mutation. The prevalence of *BRCA1/2* mutation among non-familial breast cancer patients at high-risk of HBOC was 9.0%%. According to high risk groups, the prevalence of *BRCA1/2* mutations was as follows: 9.0% for patients with early-onset breast cancer; 19.2% for patients with bilateral breast cancer; 5.2% for male breast cancer patients; and 50% for patients with breast and ovarian cancer.

Conclusions: Our study findings suggest that the prevalence of *BRCA* mutations in Korean subjects is similar to that among Western cohorts. However, a low frequency of positive family history of breast cancer was associated with *BRCA* mutations in Korean patients with breast cancer.