Relationship Between Mastalgia and the Number and Gender of Children

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Abstract
Background: Breast pain or mastalgia is the most common symptom that women refer to breast clinics. In this study, we aimed to investigate the effect of number of children and gender on breast pain.

Methods: Between February 2017 and May 2017, the number and sex of the children who applied with the complaint of mastalgia to Yuzuncu Yil University Department of Surgery were questioned and recorded. A control group was created from healthy individuals who did not have any breast complaints.

Results: All of the patients had noncyclic mastalgia. The patients were divided into two groups as mastalgia and control group. In the mastalgia and control group respectively there were 200 vs 180 cases. The mean age was 40.2 (min-max: 17-64) years in mastalgia group and 41.2 (21-70) years in control group. The mean number of children was 3.85 (0-11) in mastalgia group and 4.54 (1-13) in control group (p=0.127). The mean number of boys was 2.18 (0-8) in mastalgia group and 1.84 (0-6) in control group (p=0.001). The mean number of girls was 1.67 (0-6) in mastalgia group and 2.68 (0-7) in control group (p=0.001).

Conclusion: The number of children, regardless of duration of breastfeeding, had no effect on mastalgia while mastalgia is more common in women with more than male children.

Keywords: Mastalgia; Breast pain; The number of children; Gender of children

Introduction
Breast pain (mastalgia) is the most common symptom that women refer to breast clinics [1,2]. The mastalgia is frequently in women who aged 30-50 years [3]. Mastalgia can be divided into two groups, mainly cyclic and noncyclic [1]. There have been many studies about the causes of mastalgia. However, there are no studies on the effect of the number of children and gender of children on breast pain. So in this study, we aimed to investigate the effect of number of children and gender on breast pain in noncyclic mastalgia group.

Materials and Methods
Between February 2017 and May 2017, the number and sex of the children who applied with the complaint of mastalgia to Yuzuncu Yil University Medical Faculty General Surgery Policlinic were questioned and recorded. A control group was created from healthy individuals who did not have any breast complaints. Statistical significance of the data between the two groups was calculated using the SPSS (IBM SPSS for Windows, Ver.21) statistical package program.

Results
All of the cases had non-cyclic mastalgia in the study. In the case group (cases with mastalgia complaints) there were 200 cases and the mean age was 40.2 (min-max: 17-64) years. The average number of children was 3.85 (0-11), the average number of boys was 2.18 (0-8), and the average number of girls was 1.67 (0-6). There were 180 cases in the control group and the mean age was 41.2 (21-70) years. The average number of children was 4.54 (1-13), the average number of boys was 1.84 (0-6), and the average number of girls was 2.68 (0-7). When the two groups were compared, the number of children had no effect on mastalgia (p=0.127). The number of boys in the case group was higher and this was statistically significant (p=0.001). The control group also supported this and the number of girls was higher and this was statistically significant (p=0.001).

Discussion
Mastalgia or breast pain is the most common reason in application of breast polyclinics. 60-70% of women feel pain in the
breast at different degrees during some periods of their lives [4,5]. Mastalgia is divided into two groups as cyclic and non-cyclic. Approximately two thirds of the cases are cyclic and the pain persists during a week premenstrually and perimenstrually. Cyclic mastalgia begins around 30 years of age, while noncyclic mastalgia is more common around 40 years of age. In our study, the cases were non-cyclic mastalgia and the mean age in the mastalgia and control groups was 40 and 41, respectively [6,7].

It is not known what caused mastalgia. The fact that healing of cyclic mastalgia during periods of hormonal changes such as menopause, pregnancy and lactation, indicates a hormonal cause K2-e5 [6]. Non-cyclic pain is not associated with the menstrual cycle, and can be unilateral. Often defined as sharp, burning localized pain in the breast [8]. Also noncyclic mastalgia should be differentiated from non-breast causes of chest pain [6]. There are many factors effecting of non cyclic mastalgia (such as stress, caffeine consumption, smoking, lactation, order of menstrual cycle, breast size, fibrocystic disease...). These factors are explained in much study but effecting of number and gender of child are do not explain.

Mastalgia or breast pain is more common in women with a history of 3 or more breastfeeding. (p<0.01) These results emphasize the relationship between mastalgia and increasing number of births and thus breast tissue is exposed to higher levels of estrogen and prolactin. In addition, 3 or more periods of lactation may result in anatomical changes in the ductal system, such as ductal ectasia, which may lead to mastalgia [1]. In our study, the average number of children was 3.85 (0-11), in mastalgia grup and the average number of children was 4.54 (1-13), in control grup (p=0.127). We found that there was an important reason for this difference. In the mastalgia group, the number of boys was higher (2.18(min-max0-6) vs 1.84(min-max0-6), (p=0.001) mastalgia and control grup respectively) and the number of girls was lower (1.67(0-6) vs 2.68 (0-7), (p=0.001) mastalgia and control grup respectively), and this result was statistically significant.

When we look at the limitation of our study, we believe that these etiologic factors should be examined and verified in more detail along with other etiologic factors. As a result, the number of children, regardless of duration of breastfeeding, had no effect on mastalgia while mastalgia is more common in women with more than male children.

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