Title:
Comparison of serum level of prolactin in malignant and benign tumors in patients with breast mass who referred to ordibehesht clinic Esfahan in 1396

Abstract:
Background: Introduction: Some recent studies have shown that in many patients with breast cancer, prolactin levels are high in the blood. The aim of this study was to compare the serum level of prolactin in benign and malignant breast masses in patients referring to Ordibehesht clinic in 2016. Methods: This case-control study was performed on 65 patients with benign breast mass and 65 patients with malignant breast mass in the surgical clinic of Dr. Ali Shariati Hospital in Isfahan in 1395. Demographic characteristics and medical records of patients were recorded in both groups. The breast mass of patients in both groups was diagnosed with an examination or imaging technique by a surgical specialist and a biopsy of the mass was also used to determine the cytology. Patients were excluded from the study by taking drugs that affect serum prolactin levels or other diseases affecting serum prolactin levels. The cytological results of each patient were also recorded. Then, 5 cc of venous blood was taken from patients in both groups and serum prolactin levels were determined. Finally, raw data was entered into SPSS version 23 and was analyzed statistically. Results: 130 women with an average age of 43.2 ± 11.8 years (18-77 years old) completed this study. The most common patholysis was "fibroadenoma" (60%) in the benign breast masses and "Invasive ductal NOS grade II" (43.1%) among the malignant breast masses. The mean serum level of prolactin in patients with benign breast mass was 30.1 ng / mL and in patients with malignant breast mass was 29.2 ng / mL, which was not statistically significant (P = 0.869). Also, the number of patients with normal and non-normal serum levels of prolactin in both benign and malignant breast was not statistically significant (P = 0.150). Also, our study showed that serum prolactin levels in two groups with benign and malignant breast mass no differed from menopausal status and pathology of tumor. Conclusion: Considering the fact that there was no significant difference between serum levels of prolactin in patients with benign and malignant breast mass. Also, this difference was not significant in terms of the status of menopause and the type of pathology of the tumor, it is suggested that in future studies other factors such as the association of breast cancer with other hormones such as estradiol estradiol and progesterone should also be considered.

Keywords:
breast mass, malignancy, prolactin