

Case Report

Predicting risk of breast cancer by breastfeeding

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Accepted 18 July 2013

Abstract

A forty nine(49) year-old woman was diagnosed with left-breast adenocarcinoma and suggested for surgical removal of the breast. The patient described that her 3 years old son has had breast feeding exclusively from her right breast and he always had rejected being fed from her left breast. One breastfeeding in relation to the breast cancer risk factors is discussed. It is concluded that one breastfeeding may be considered as a predicting factor for breast cancer risk assessment.

Keywords: Breast cancer, Breast feeding, Mammary ducts, Lactation, Mammary gland

INTRODUCTION

Breast cancer is known as the most life-threatening cancer in women worldwide (Whelehan et.al., 2013, Buchholz, 2009 and Giordano et.al., 2004). Women and physicians are encouraged to use risk estimation models to assist decision making regarding potential prevention options for breast cancer. The risk estimates models have gradually improved and lead to more efficient method of evaluation with a degree of invasiveness, less toxic treatments and the more economical. Genetic, mammography, breast features, and a variety of other factors such as family histories of breast cancer, the association between alcohol drinking, body mass index, early adolescent weight and postmenopausal breast cancer risk defined by estrogen and progesterone receptor status, especially among those women who use postmenopausal hormones are suggested to be important factors to be used for early prediction of breast cancer (Sotirou and Puzstai 2009, Chlebowski et.al., 2007, Boffetta et.al., 2006 and Lacroix et.al., 2006, Yu et.al., 2010). There has been an intensive effort by several groups to develop multivariate methods to derive a breast cancer risk assessment tool using sets of risk factors that are informative for estimating the risk of breast cancer (Gail et.al., 1989, Gail et.al., 1999, Freedman et.al., 2003, Costantino et.al., 1999 and Chlebowski et.al., 2007). Despite some limitations, these methods present useful information to estimate women's breast cancer risk. The case presented in this paper provides a different factor which may be consider to the family history document of the women who are evaluated for the risk of breast cancer

Case Report

In this case report, a 49 year-old woman with an untreated breast mass for a 9-month history of progressive multiple asymptomatic nodular lesions on the left chest presented for clinical evaluation. The patient was diagnosed with left-breast adenocarcinoma and suggested for surgical removal of the breast. The patient has a 3 year-old healthy happy son. The patient described that her son has had breast feeding exclusively from her right breast for about 16 months, and he always had rejected being fed from her left breast. Although the mother had encouraged him to the left breastfeeding, the baby never had nursed on the right as long as he had done the left one, but at least the patient was not as asymmetrical and she didn't have to pump away. However, the patient didn't have any adverse filing about her breast during the last 3 years, until admission for clinical evaluation.

DISCUSSION

One breastfeeding has been reported occasionally. The main reasons that a baby might favor one breast is that the baby cannot intake adequate milk from the other breast. The difference between lactating (milk producing) and non-lactating breasts is mainly due to the duct obstruction. It may occur during lactation at the end of breastfeeding when the milk is allowed to stagnate in the breast. This may be associated with mastitis, or inflammation and infection in the breast. Histological evaluation often reveals a large variety in the proportions of fat, lactose, and proteins in the fluid mixture or in the cysts. Thicker tumor walls also tend to be associated with inflammation (Haslam and Woodward, 2003; Elston and Ellis, 1991). Numerous studies have shown that physiological changes in the cells of the mammary ducts, on reaching functional maturity with lactation, might be able to grant some protection against the development of breast cancer (Henderson et. al., 1982 Lloyd et. al., 1989). Furthermore, it is believed that lactation unloads breast tissue of carcinogenic substances, including organochlorine, pesticides and estrogenic compounds (Kelsey and Berkowitz, 1988; Yang, 1902; Newcomb and Trentham-Dietz, 1994). It is suggested that toxin-unloaded breast tissue, is less likely to become cancerous (Michels, 1996; Bradlow et. al., 1995). It is reasonable therefore, to speculate that one breast feeding might put the other breast at risk for developing cancer.

In conclusion, this case report presents a novel factor that might be added to the previous factors to help early prediction of breast cancer prior to the clinical onset of the disease.

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