

# Is multiparity a protective mechanism in Iraqi females with breast cancer? Need for detailed analysis

Sir,

Breast cancer (BC) is the most frequent cancer in women both in developed and developing countries.<sup>[1]</sup> It is also the most frequent cancer among women in Iraq and in accordance with the latest Iraqi Cancer Registry, BC accounts for approximately one-third of the registered female cancers making it the leading cancer site.<sup>[2]</sup>

Studies have suggested that higher age at first pregnancy, number of children and the lapse between births may protect against BC. Serum levels of estrogen, prolactin, and progesterone have been found to contribute to the development of this tumor in obese women.<sup>[3]</sup> Furthermore, heterogeneity in reproductive risk factors also accounts for the distinct subtypes of BC. The most consistent evidence has been that for hormone receptor (HR) positive BC with multiparity, use of menopausal hormone therapy, and prolonged interval between menarche and age at childbearing being the strongest risk factors, while multiparity and lactation being inversely associated with HR positive tumors<sup>[4]</sup> In an attempt to recognize the possible risk, as well as protective factors associated with BC in Iraqi females, we undertook a retrospective audit of 50 Iraqi females who were referred to us for adjuvant radiotherapy.

In our analysis ( $n = 50$ ), the mean age of the group was 47.93 (range 24–69) years. Of these, 21 females (42%) were premenopausal whereas 29 (48%) were postmenopausal. Seven females (14%) had a triple negative hormonal status. Three females (6%) had Stage I disease, 16 (32%) had Stage II disease, 26 females (52%) had a Stage III disease and five females (10%) had a Stage IV disease diagnosed on metastatic workup.

Of particular interest was the fact that 25 out of 48 (52.08%) females had  $\geq 4$  child births while 23 (47.91%) females had  $\leq 3$  child births. Multiple pregnancies did not appear to confer any protection in the group studied.

Literature research reveals a host of factors that have been postulated to be associated in one form or the other with BC affecting females in Iraq. These include seemingly farfetched determinants viz. estimation of serum prostate-specific antigen<sup>[5]</sup> or antiperspirant use<sup>[6]</sup> with no evidence towards postulating any protective factors. Similarly, in our brief analysis, we found out no definite correlation between the

number of pregnancies and the occurrence of BC in the Iraqi females.

Given the alarming rise of BC incidence in Iraq, there seems to be an urgent need to postulate the possible risk factors contributing, and aid an efficient prevention. The altered ecosystem owing to warfare, prevalence of smoking, viral factors and/or possible dietary and environmental factors may account for the probable cause.<sup>[7-9]</sup>

Our data does not clearly indicate any particular factor or pattern as a risk of BC in the Iraqi females but at the same time, suggests no definite prevention in females having multiple (mostly  $>4$ ) pregnancies and subsequent breast-feeding.

This letter comes as a recommendation to formulate a robust database and to expand epidemiological research needed to examine possible causes and prevention of the same. We recommend large investigational studies addressing the particular risk factors affecting the Iraqi females as a causative mechanism for BC with multiparity appearing to offer little, if not none, benefit.

## ACKNOWLEDGMENT

Ms. Navita Gill, Radiation Oncology Nurse.

**Vivek Tiwari, Subodh C. Pande,  
Kamal Verma, Sandeep Goel**

Department of Radiation Oncology, Artemis Health Institute,  
Gurgaon, Haryana, India

**Correspondence to:** Dr. Vivek Tiwari,  
Department of Radiation Oncology, Artemis Health Institute,  
Sector 51, Gurgaon, Haryana, India.  
E-mail: dr\_vivektiwari@rediffmail.com

## REFERENCES

1. Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. *Int J Cancer* 2010;127:2893-917.
2. Al-Hashimi MM, Wang XJ. Breast cancer in Iraq, incidence trends from 2000-2009. *Asian Pac J Cancer Prev* 2014;15:281-6.
3. González-Jiménez E, Montero-Alonso MÁ, Schmidt Riovalle J. Association between obstetric factors, hormone levels and nutritional status with the development of breast cancer. *Rev Med Chil* 2013;141:1541-6.

4. Anderson KN, Schwab RB, Martinez ME. Reproductive risk factors and breast cancer subtypes: A review of the literature. *Breast Cancer Res Treat* 2014;144:1-10.
5. Mashkooor FC, Al-Asadi JN, Al-Naama LM. Serum level of prostate-specific antigen (PSA) in women with breast cancer. *Cancer Epidemiol* 2013;37:613-8.
6. Fakri S, Al-Azzawi A, Al-Tawil N. Antiperspirant use as a risk factor for breast cancer in Iraq. *East Mediterr Health J* 2006;12:478-82.
7. El-Basmy A, Al-Mohannadi S, Al-Awadi A. Some epidemiological measures of cancer in Kuwait: National cancer registry data from 2000-2009. *Asian Pac J Cancer Prev* 2012;13:3113-8.
8. Al Moustafa AE, Al-Awadhi R, Missaoui N, Adam I, Durusoy R, Ghabreau L, *et al.* Human papillomaviruses-related cancers: Presence and prevention strategies in the Middle East and North African Regions. *Hum Vaccin Immunother* 2014;10.
9. Dhaini HR, Kobeissi L. Toxicogenetic profile and cancer risk in Lebanese. *J Toxicol Environ Health B Crit Rev* 2014;17:95-125.

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<b>Quick Response Code:</b> 	<b>Website:</b> <a href="http://www.cci-j-online.org">www.cci-j-online.org</a>
	<b>DOI:</b> 10.4103/2278-0513.148933

