



BREAST CANCER: EARLY DETECTION INITIATIVE IN PAKISTAN

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Breast cancer is currently the most prevalent female cancer worldwide, with estimated global figures of 2.3 million new cases (11.7% of all cancer) in 2020. It is the 5th leading cause of cancer-related mortality worldwide, 685,000 deaths.^{1,2} Exact cause of the breast cancer is not known however, genetic factors like BRCA 1, 2 & p 53 gene mutations play an important role. Other risk factors include female gender, growing age, high estrogen exposure, obesity, lack of exercise, stress, early menarche and late menopause etc.³

Magnitude of the breast cancer patients in Pakistan is undetermined due to absence of the central registry.⁴ However, an estimated 90,000 women are diagnosed every year with breast cancer in Pakistan out of which 40,000 die every year.⁵ It's said that every 9th woman is at risk of breast cancer in Pakistan, nevertheless, being a woman, every woman is at risk.^{5,6} Recently activities initiated by the first lady, national & international organizations and civil society to raise the awareness about self-examination and early detection in Pakistan has highlighted the importance of this health problem to the masses.

Pakistan Atomic Energy Commission (PAEC) is the prime stakeholder of the cancer care in Pakistan. PAEC cancer registry report 2018-2019 encompassed the data of cancer patients from all over Pakistan including & Afghan refugees. According to this report, breast cancer was the most common cancer (8,816- 23% and 9,827- 24% cases during 2018 & 2019 respectively) among female of Pakistan. Most common age of reporting of the cancer remained 49 years, compare to 62 years in USA.⁷ The high-risk group was 40-69 years of age, comprising of about 90% of

the breast cancer. According to this data every two out of five females were diagnosed with breast cancer in Pakistan. Highest number of breast cancer patients were seen in Punjab (49% in 2018 & 50% in 2019) and Islamabad (45% in 2018 & 46% in 2019), reasons may include urban life, enhanced awareness and availability of the diagnostic facilities in these areas. Rest of the breast cancer statistics include: Sindh (34.6% in 2018 & 34.0% in 2019), KP (31.1% in 2018 & 34.0% in 2019), Baluchistan (28.8% in 2018 & 30.7% in 2019), Jammu and Kashmir (34.1% in 2018 & 35.0% in 2019), Gilgit Baltistan (25.0% in 2018 & 19.2% in 2019) and Afghanistan (29.2% in 2018 & 34.4% in 2019). According to the data, since 2015, out of 41,673 total breast cancer patients, 939 (2.2%) males, mostly from the Pakhtoon ethnicity suffered, which is comparable to the world data of less than 1%. Majority of the patients presented with advanced stages of the breast cancer (61% and 63% of total cases were in stage III/ IV during the year 2018 & 2019 respectively).⁸

Breast cancer is still considered a taboo in the conservative society of Pakistan, where female population stands 109,315,131.^{9,10} Despite the fact that the World Health Organization Global Breast Cancer Initiative (GBCI) has set the target to reduce 2% breast cancer related deaths per year worldwide, Pakistan lacks breast cancer control program.^{1,11} There is a lack of infrastructure and service providers in the endeavors of early detection and referral, especially at the primary health care levels.

Breast cancer early detection initiative model in Khyber Pakhtunkhwa

Pakistan in the early phase of

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establishment of the breast cancer control model, conducted a distinctive situational analysis during 2021, by the breast cancer subcommittee of the Khyber Pakhtunkhwa province (KP) of Pakistan. It was found that there are only eleven mammography machines for 35.5 million population of KP in contrast to seventy mammogram machines per million population in developed country like USA.¹² Chemotherapy services are available in nine facilities, whereas Radiotherapy services are available in only seven facilities of KP.¹³ Provincial Assembly of KP passed a resolution unanimously on 7th July 2020 and a proposal has been approved for the KP ADP budget of 2022-23 as the flagship program of the "Breast cancer early detection initiative" to enhance the capacity of the province for early detection through availability of the specialized ultrasound, Mammograms and biopsy at the seven divisions of KP in addition to project implementation unit at the Provincial capital. Public Health Association KP with the vision to promote Public health and influence health policies, was the prime non-governmental organization, to start the struggle for breast cancer control program in the province, was joined by PAEC and other high profile health professionals. This model should be adopted by the rest of the provinces to reduce deaths among female of Pakistan.

Future preventive strategies should include further strengthening of the early detection initiative. Beside good planning, implementation and referral mechanisms, addition of cancer registry, genetic testing and screening, continuous research, targeted advocacy

activities, social mobilization to promote self and clinical examination will help to decrease morbidity and mortality associated with the breast cancer.

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CONFLICT OF INTEREST

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