

Debunking Myths at Shaukat Khanum Cancer Hospital: An Internship Experience

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Madam, this year as part of our co-curricular activities, I visited Shaukat Khanum Memorial Cancer Hospital & Research Centre (SKMCH & RC), the first of its kind to be built in Pakistan. Located in Lahore, this hospital was established in 1994 by Imran Khan with the aim to treat cancer after his own mother passed away from it. During my time in this state-of-the-art hospital, I experienced, first-hand, the technologies employed for treating cancer that are still unheard of by many people in Pakistan.

Cancer is considered taboo in many parts of the world; in Pakistan, the story is no different. Pakistan has the highest rates of breast and ovarian cancer in Asia^{1,2} and many women are still afraid of the social stigma that surrounds this disease. Lack of awareness and education has led much of our population to believe that cancer equals certain death. Over the years, efforts have been made to encourage women to self-examine for lumps while free mammograms and pap smears are offered by many hospitals to catch the cancer before it spreads; however, it is still not enough. At SKMCH, dedicated researchers have been collecting data for over 30 years, investigating breast and ovarian cancer causing gene mutations in Breast Cancer Susceptibility Gene1 (BRCA1) and Breast Cancer Susceptibility Gene2 (BRCA2)², and I had the opportunity to observe how they 'catch' cancer before it even appears. Detailed family pedigrees have been drawn to predict the first incidence of breast cancer in Pakistan and map its spread across the country. DNA sequencing is carried out for Index patients and families with germ-line mutations are

counselled. Some high-risk patients opt for a mastectomy or oophorectomy to prevent incidence and these procedures prove to be life-saving in their cases. Genetic testing at SKMCH led to the discovery of novel mutations, whereas large groups were screened for germ-line mutations in BRCA1 and BRCA2 to establish the link between these mutations, triple-negative breast cancer³ and hereditary breast and ovarian cancer. I also had the opportunity to observe ongoing work on human homologues of DNA, mismatch repair (MMR) genes that have been linked with colo-rectal cancer⁴.

The implications of genetic testing are massive; it can change the way we treat diseases in the future⁵. Currently, these techniques are used for accurate diagnosis, predictive and pre-symptomatic testing, and pharmacogenetic treatment⁵. The availability of these advanced detection techniques in Pakistan provides a means for prevention and should be propagated to change the perception that cancer is incurable.

References

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