SA Indian women more prone to breast cancer, says pathologist

A SOUTH African Indian woman as a 1-in-13 chance of developing breast cancer and is this at significantly greater risk to the disease than her white or black counterparts, whose risk is 1-in16 and 1-in-57 respectively.

So says Dr Anil Bramdev, a pathologist and member of the National Pathology Group (NPG) practising in Durban.

"Our KwaZulu-Natal practice sees a disproportionate number of Indian breast cancer patients. On average, we are diagnosing two cases a day," Bramdev said.

He said many of the cancers were familial where the disease is passed genetically from generation to generation.

"Most familial breast cancer is the result of a mutation of the BRCA 1 and 2 genes. In 80% of families with a history of four or more cases of breast cancer, either BRCA 1 or 2 is responsible."

Individuals with a mutation of the BRCA 1 gene also carry a 40% risk of contracting ovarian cancer by the age of 70. Carriers of the BRCA 2 gene have a lower incidence of ovarian cancer but their families do have a higher rate of male cancer.

Of particular concern to Bramdev is the large increase in the number of younger patients (those under 40) who are contracting breast cancer. The standard procedure for screening for breast cancer is regular physical examinations, followed by an annual mammogram from age 40 and gene testing if there is a query.

Bramdev said that a normal mammogram could miss up to one-third of lesions so in cases where there is a strong family history of breast cancer, it is important to do genetic testing as soon as possible, even when a woman is in her early 20s.

"Unfortunately, if your mother and elder sister or an aunt developed breast cancer, you are at a very high risk to get the disease as well. For your long-term wellbeing it is critical to detect the disease as early as possible," said Bramdev.

Early detection is critical to successful treatment. If breast cancer is detected in stage one, when it is confined to the breast, there is an excellent prognosis for the patient as the cure success rate in 90%. At this stage, it is possible to remove the cancer with a wide incision and no chemotherapy may be necessary.

In stage two the cancer spreads to the lymph nodes under the armpit. Both surgery and chemotherapy are needed to treat the patient and the prognosis drops to 50%.

During stage three, the cancer spreads to the neck and other side of the chest, and in stage four, it spreads to the other organs, making recovery unlikely.

Another important test that determines behaviour and prognosis in breast cancer is HER 2 test, also known as c-erb. HER 2, the Human Epidermal growth factor Receptor 2, is a protein found on all cell membranes. It plays an important role in regulating cell growth, survival and cell differentiation.

It is present in 20% to 30% of all breast cancers.

Amplification of the gene results in over expression of the HER 2 protein resulting in more aggressive tumour growth.

Herceptin, the HER 2 antibody treatment is used as a single agent for the treatment of HER 2 metastatic breast cancer (breast cancer that has spread) in patients who have already received chemotherapy. It significantly improves the overall survival rate in these patients.