RADIOLOGY

BREAST CANCER SCREENING - BENEFITS

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BREAST cancer is considered today a public health problem. Although it is not the most lethal type of cancer, it has a high incidence and a high mortality rate especially in women (only one in 100 men develop breast cancer). Currently in Portugal, with a female population of five million, there are 6,000 new cases of breast cancer each year, or 11 new cases per day, with four women dying each day from breast cancer.

Some risk factors are known and are closely associated with lifestyle and reproductive characteristics, inherent to modern and westernised life. Between 5% and 10% of diagnosed cases of breast cancer are related to genetic and hereditary mutations, which, if confirmed, require an earlier and careful follow-up of the family members.

The great difficulty in decreasing the prevalence of risk factors for breast cancer justifies a secondary prevention, which means procedures as well as awareness attitudes must change, so that the diagnosis of a malignant tumor takes place in the earliest stages possible.

Breast cancer screening is, in fact, not only intended for early diagnosis but also to detect very small tumors, often not palpable and only diagnosable by mammography or ultrasound or in a

non-invasive evolutionary phase, thus permitting less traumatic and less invasive surgical treatment (conservative surgery).

Early diagnosis and treatment result in an overall longer survival rate, disease-free. To better evaluate the importance of screening, the difference in prognosis, for example, of a tumor less than 2cm in diameter is 85% survival rate in 10 years. A disseminated tumor with lesions in other organs will have a survival rate of 15% or less in 10 years.

The equipment necessary to perform a mammography is the mammograph. This type of equipment is continuously undergoing considerable improvement, combining image quality, definition and contrast with low dosage radiation. Recent mammographs are equipped with high-frequency generators, high resolution imaging, resulting in a significantly lower radiation dosage with better distribution. This state-of-the-art equipment reacts less to patient movement resulting in extremely accurate results.

Current studies regarding benefit and minimal risk involved in mammography screening suggest that:

 It should be performed at any age when there is a significant suspicion of breast cancer;

- It is not advisable before the age of 35 unless there is suspicion of tumors.
- A mammogram should be performed at least every two years in women between 35 to 40 years of age. The frequency of mammography screening in asymptomatic women younger than 50 years of age should be determined by analysing relative risk factors for breast cancer.
- Asymptomatic women aged 50 or older should undergo screening once a year. Clinical practice has evidenced reduced mortality in older women undergoing periodic screening annually.

In general terms, the earlier a breast tumor is detected, the less aggressive the treatment and the better the patient's prognosis.

Fortunately, we are no longer in the world of Halsted's radical mastectomy. Today, the surgical procedures are conservative, saving the breast tissue as much as possible, with less toxic and better tolerated treatments, resulting in a better quality of life after the disease.

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