INTRODUCTION

Strandard treatment for breast cancer usually involves removing a breast tumour (by either lumpectomy or mastectomy) and most of the lymph nodes in the underarm closest to the cancerous breast. Removal of the lymph nodes causes side effects in some patients, such as swelling in the arm and numbness ***(Petrec, 1995).***

Axillary node dissection has long been a mainstay in the treatment of breast cancer. It provides precise staging and prognostication, prevent local recurrence in the axilla, and in patients with positive nodes, may modestly enhance survival ***(Petrec, 1995).***

To date, no procedures has proven as effective as axillary lymph node dissection in accomplishing these goals. Nevertheless, axillary dissection is a major operation, requires genral anesthesia, and produces long-term morbidity in a small, but significant, minority of patients ***(Hiram, 1999).***

Within the last 2 years, sentinel lymph node (SLN) biopsy has rapidly emerged as the most excisting development in the surgical treatment of invasive breast cancer since the advent of breast conservation. It has the potential to identify those patients most likely to be helped by axillary dissection (i.e., those with positive nodes) and to spare node-negative patients, who cannot benefit, from the morbidity of an operation.

Undoubtedly, sentinel lymph node biopsy will rapidly become a standard treatment option for all patients with early-stage breast cancer and will replace axillary dissection for many of these patients ***(Hiram, 1999).***

Kett et al., in 1970, identified a lymph node (which they called the 'Sorgius node') that received the initial drainage of contrast medium from the breast.

The use of SLN biopsy in breast cancer was first reported in 1993 by ***Krag et al.,*** who employed radiological localization and in ***1994 by Giuliano et al.,*** who employed blue dye. In the study by Krag et al., isotope identified the SLN, with 100% accuracy. In the report of Giuliano et al., blue dye identified the SLN, with 96% accuracy.

With blue dye as described by ***(Giuliano et al., 1994)*** the surgeon identifies blue lymphatic vessels exiting the tail of the breast and traces them to a blue-stained SLN in the axilla, removing all blue nodes. All blue and/or hot nodes are removed and submitted for pathologic examination.

Sentinel lymph node biopsy (SLNB) has proved to be an accurate alternative to complete axillary lymph node dissection (ALND) in clinically node-negative breast cancer patients.

Multicentric tumors raise the possibility of identifying the 'wrong' SLN and, in general, should be excluded from SLN biopsy. Exceptions may be tumors that are relatively contiguous, or tumors that contain a small invasive lesions within an extensive in situ component. In these settings, the

isotope and/or dye injections would be administered near the invasive lesions ***(Barn Well et al., 1998).***

Multicentric (MC) and multtifocal (MF) invasive breast cancer are considered to be relative contraindications of SLNB ***(Tousimis et al., 2003).***

In our work we will study the accuracy of SLNB in patients with MC and MF invasive breast cancers.

The techniques:

The sentinel node to be excised during SLND is identified intraoperative by lymphatic mapping using a vital blue dye and/or a radio active tracer in ether case, the technique can be done with local anesthesia and heavy sedation or with light general anesthesia ***(Eddy et al., 1998).***

At the time of surgery, 3-5 ml of blue dye is injected into the breast parenchyma immediately adjacent to the breast mass laterally and below tumor was excised previously, dye is injected into the wall of the biopsy cavity. If the primary tumor is not palpable, a needle inserted uner mammographic guidance for tumor localization is used to inject the dey. Approximately 5 minutes after dye injection, a transverse incision is made just below the hair-bearing area in the axilla. Bluent dissection is performed to identify the dye-filled lymphatic tract. This tract is then followed proximally and distally until a blue-stained sentinel node is identified. If more than one dye-filled lymphatic tract is identified, each is followed. These tracts usually drain to the sentinel node.

AIM OF THE WORK

The aim of this work is to study the accuracy of sentinel lymph node in multicentric and multifocal invasive breast cancers and its impact on management of breast cancer and its benefits in prognosis and survival rats in breast cancer and its special relations to different types of breast cancer.