

## MULTI-DIMENSIONAL BREAST LUMP MAPPING

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## KEYWORDS :

## INTRODUCTION:

Clinical breast examination is a crucial step in the triple assessment of a lady presenting with a breast lump, as well as for screening. Increased breast density in young females has higher likelihood of false negative findings on sub-optimal clinical examination and in mammography.

There are four different methods of clinical breast examination, namely, dial of clock, vertical strips, quadrant wise and concentric circles (Picture 1). A study done at AIIMS has demonstrated that dial of clock method had the maximum sensitivity of detection of a breast lump<sup>1,2</sup>.

We found deficiency in these breast examination techniques, and we have developed comprehensive multidimensional mapping of the breast lump.

## Technique of Breast Examination:



Patient is explained about examination, made comfortable and in a closed and secured room, is disrobed from the waist up for a complete breast examination. A female attendant must be present at all times during examination.

## Inspection:

With arms by the side in sitting position, both breasts are examined together for abnormality in size, shape and symmetry. Areola is assessed for retraction, ulcer, edema and scar marks. Skin is examined for prominent veins, redness, dimpling, ulcer, edema and scar marks<sup>3,4</sup>.

## Palpation:

In supine or recumbent position, with arms abducted and a pillow placed under the ipsilateral shoulder for examination of medial part of the breast. The patient rolls on opposite side to examine the lateral half of breast so that the breast tissue flattens. The dominant hand palpates the lesion while the non-dominant hand flattens the breast and stabilizes it. The pads of middle three fingers are used for palpation. Circular movements are made by the fingers over the breast and three times increasing pressure palpates the breast from superficial to deep lesions. Palpation is carried out in a systematic manner – dial of clock method- covering the entire breast. The breast is imagined as a round clock and starting from 12 o'clock (going from periphery to the nipple), and systematically going around, the entire breast is covered.

## Documentation-

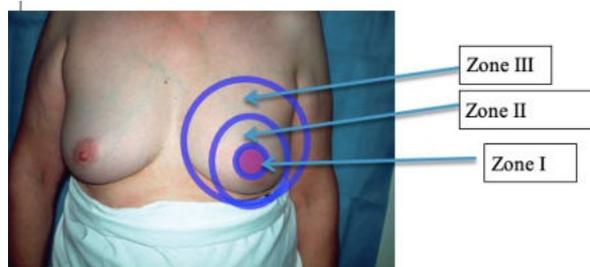
When documenting the characteristics of a mass, detail is of the utmost importance as it assists in the formulation of a differential diagnosis. Location of the lump is very important for planning of upfront surgery in cases of breast conservation surgery as well as in mastectomy. It is also important when patient is a candidate for neoadjuvant chemotherapy to follow the change in the size of the lump and the response<sup>5,6,7</sup>.

Conventionally we mention the location in respect to dial of a clock, but in large breast two lesions at 2'o clock can have different location if one is near NAC or towards outer area.

We propose a mapping of breast for better communication and for better planning particularly the locally advanced cases when they are posted for surgery after Neo-adjuvant chemotherapy.

For the ease and accuracy of documentation of lumps. We divide the breast topographically into 3 concentric circles one at the periphery and one the perimeter of areola and one in between the two circles. We name the three zones as Zone I, zone II and Zone III. The inner circle is known as Zone outer most circle and I named as Zone III.

So, to precisely describe the location of the lump, we include both dial of clock and zonal parameters. In cases of large lump we can mention: 2-5 O' clock zone II > zone I.



## CONCLUSION:

Clinical breast examination is the primary modality in triple assessment of a lump and important for screening of breast lumps particularly in Asian countries and documentation of the lump is very important. The mapping in different zones allows us to map the lump accurately to ease in surgical planning and follow-up.

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