

IN BREAST
RADIOTHERAPY,
THE ADVANTAGES OF
USING BREAST BOARD
WITH VACUUM BED
DURING SIMULATION IN
TREATMENT

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PURPOSE

- To keep patients arm position at the same angle during each treatment.
- To keep patients body position same as per first simulation day.
- To provide a comfortable position to patient during treatment.
- Correct treatment.

MATERIALS AND METHODS

- During the preparation of the breast CT-simulation with 10 patients who had 25 fraction of the breast radiotherapy treatment;

- 5 patients were positioned on the breast board whit a vacuum bed usage.



- 5 patients were positioned only using breast board.



COMPARISON

- From the beginning of the treatment the weekly EPI (Electronic Portal Images) are taken and the average shifts are calculated on the lateral (left-right), a longitudinal (superior-inferior) and vertical (anterior-posterior)

RESULTS

1- The average shifts in EPI with patient groups who had breast vacuum bed fixed on the board are as follows:

In the Term of Lateral axis:

- In the left direction 4.2 mm
- In the right direction 2.2mm

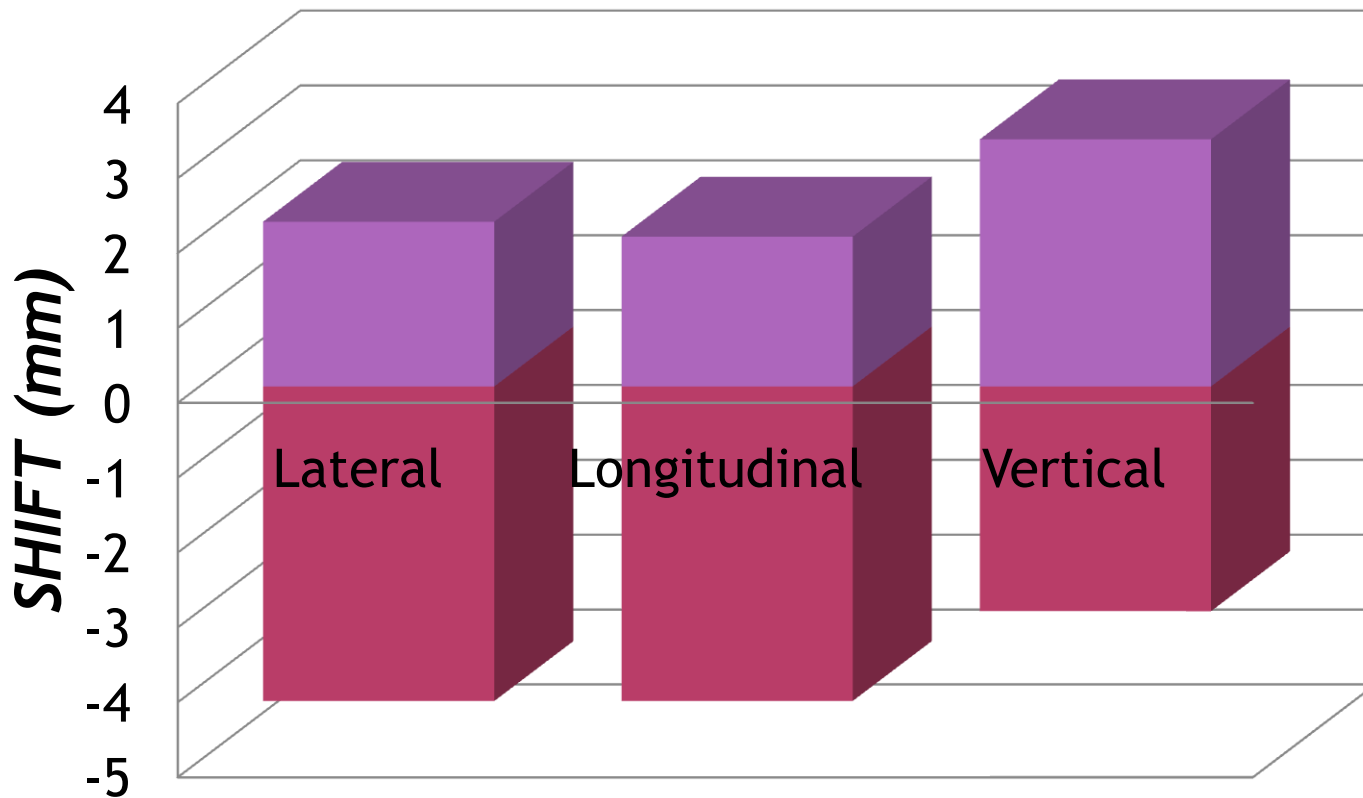
The average longitudinal shifts are:

- In superior direction 4.2 mm
- In inferior direction 2mm

The average shifts in the vertical direction are:

- Anterior direction 3mm
- Posterior direction of 3.3mm

THE AVERAGE SHIFT OF PATIENTS WHOSE WERE FIXED WITH VACUUM BED, BY USING EPI



2- With patients using only breast board:

The average shift in the lateral direction in EPI are:

- To left direction 6.7 mm
- To right direction 3.5 mm

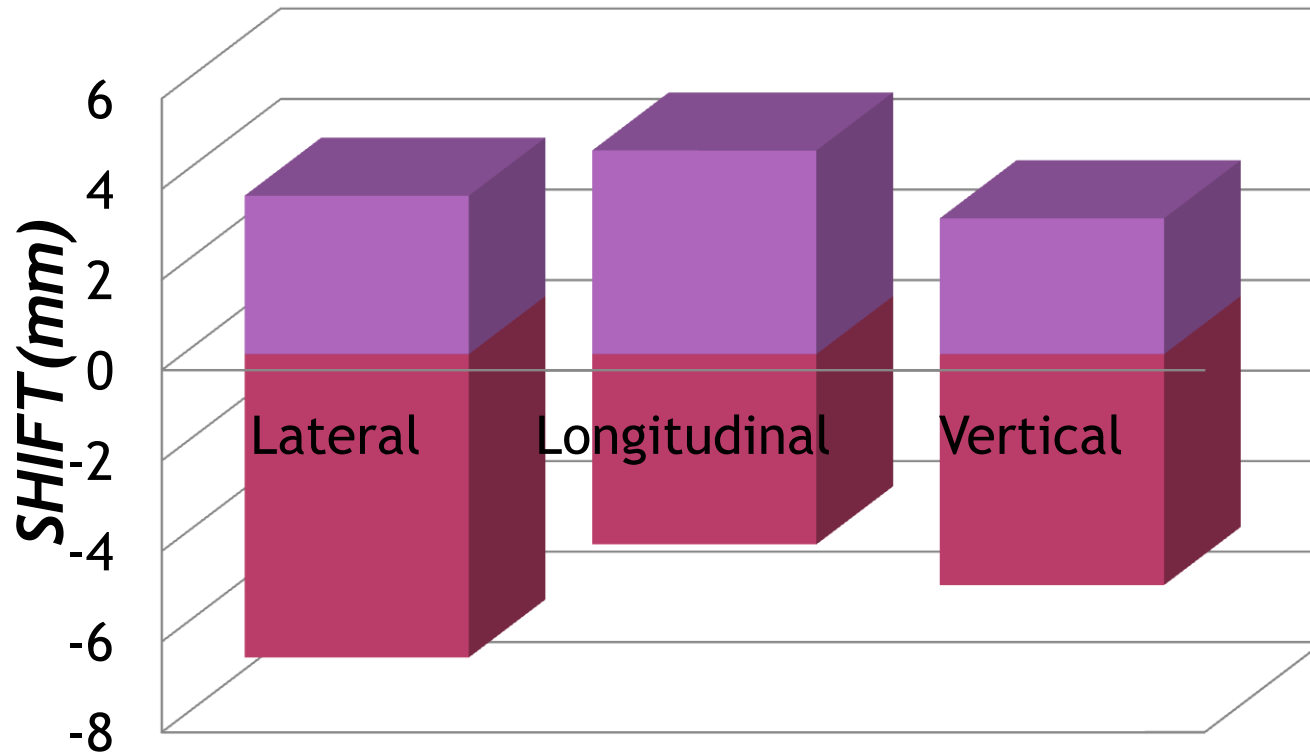
The average shift in longitudinal direction are:

- A superior direction of 4.2 mm
- Inferior direction of 4.5mm

Vertical average shifts in the:

- Anterior direction of 5.1mm
- 3 mm in the posterior direction were found

THE AVERAGE SHIFT OF PATIENTS WHOSE WERE FIXED WITH BREAST BOARD, BY USING EPI



DISCUSSION

- The shift was less with usage of breast board with vacuum bed on patients
- The usage of breast board with vacuum bed reduced the errors with setup origin
- It has been observed that the patients who had vacuum bad had less sliding from the board and had more comfortable treatment experience

ADVANTAGES ARE

- To minimize setup times
- Treatment of patients in a short time without fatigue
- Facilitating the work of technicians.

AT THE END OF THIS STUDY

In our clinic we choose to treat our patients using vacuum bed fixed on top of breast board.

THANKS FOR YOUR ATTENTION