A STUDY ON ROLE OF PROSTATE SPECIFIC ANTIGEN IN CARCINOMA BREAST

Dr. Dinesh K R,
PG in General Surgery (M.S)

INTRODUCTION

Breast cancer is a major concern worldwide and is responsible for one of the highest causes of death all over world including India. The chance that breast cancer will be responsible for a woman’s death is about 1 in 35 cases. Researches are trying to discover new biomarkers that might be better for diagnosis, prognosis, treatment monitoring and to develop new drugs that might work better against breast cancer.

Prostate specific antigen is a 33 k Da serine protease expressed at high level in prostate epithelium and elevated PSA in serum is well established marker of prostate cancer. Numerous studies have demonstrated the production of PSA in female tissue such as breast, endometrium and ovary are similar to prostate since their growth and differentiation are controlled by steroid hormones and low levels of PSA are present in female serum.

Thus serum prostate specific antigen level in patients with carcinoma breast is comparable with normal serum PSA level in females which is about 0.1-0.9 ng/ml.

This prospective study is designed to evaluate the diagnostic value of serum prostate specific antigen level in carcinoma breast.
AIMS & OBJECTIVES:
1. To know the usefulness of prostate specific antigen as a biomarker marker in carcinoma breast
2. To compare the level of serum prostate specific antigen in patients with carcinoma breast with normal standardised level and to compare the preoperative and postoperative serum PSA level in patients with carcinoma breast.

MATERIALS AND METHODS
PLACE OF STUDY:
Department of General Surgery, Govt. Stanley Medical College and Hospital

DURATION:
JAN 2014 TO SEP 2014

STUDY DESIGN:
Comparitive study

SAMPLE SIZE : 50

INCLUSION CRITERIA:
1. Patients presenting with lump in the breast which proven to be carcinoma through tissue diagnosis.

EXCLUSION CRITERIA:
1. Patients with lump in the breast which proven to be benign through tissue diagnosis and patients with associated ovarian and uterine pathology.
METHODOLOGY:

- Patients presenting with clinical features of lump over breast, who getting admission as in-patient in ward of our hospital from January 2014 to November 2014 will be enrolled in our study.
- Serum prostate specific antigen, sonographic study of breast, tissue diagnosis of lump will be done simultaneously.
- Serum prostate specific antigen level will be compared with normal standard level in patients proven to be carcinoma breast through tissue diagnosis.
- Observations are tabulated according to the pre-designed proforma.
- The results are analyzed using Microsoft Excel for tabular transformation and graphical representation. For comparing the parameters, Chi Square test or Fischer’s exact test are used. SPSS software will be used for statistical analysis.
CONCLUSION

This study conducted in an attempt to know, if serum PSA measurement in Female patients with carcinoma breast have any diagnostic, prognostic or monitoring value. Serum PSA level of breast cancer patients were compared with standardized normal level and pre surgical and post surgical levels are also been compared. After statistical analysis, the conclusion made that, there is no significant correlation between serum PSA level and carcinoma breast and no significant difference between Pre surgical and post surgical serum PSA level in patients with carcinoma breast. In prostate, PSA enters the circulation by physical diffusion. Factors that affects the transport of PSA from tissue to blood may also be considered at this point and also the tumor behavior of the westerner and Asians may be considered for its significant change of PSA.
KEY WORDS

- CARCINOMA BREAST
- PROSTATE SPECIFIC ANTIGEN[PSA]
- SERUM MARKER
- BREAST TISSUE
- PRESURGICAL LEVEL
- POST SURGICAL LEVEL

REFERENCES
1. Armbruster da[1993].prostate specific antigen;biochem analytical methods and clinical application