

## HOSPITAL BASED PRELIMINARY STUDY ON OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN

Indumati.V\*, Vidya.S.Patil and Rama Jaiikhani

Department of Biochemistry, S.D.M College of Medical Sciences and Hospital, Sattur, Dharwad-580009, Karnataka.

\*Department of Biochemistry, Belgaum Institute of Medical Sciences, Civil Hospital, Belgaum, Karnataka.

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### ABSTRACT

*The awareness of osteoporosis has grown world wide in recent years. This silently progressing metabolic bone disease is widely prevalent in India, and osteoporotic fractures are a common cause of morbidity and mortality in adult Indian men and women. Rapid bone loss occurs in postmenopausal women due to hormonal factors which lead to increased risk of fractures. Biochemical markers of bone metabolism are used to assess skeletal turnover. A cross-sectional study of 150 pre- and post menopausal women was carried out at S.D.M College of Medical Sciences and Hospital, Dharwad, during the period of May 2005 to September 2005. The study group consisted of 75 Premenopausal women in the age group of 25-45 years and 75 Postmenopausal women in the age group of 46-65 years. Bone formation markers (Total Calcium, Ionised calcium, Phosphorus, Alkaline phosphatase), and bone resorption markers (Urinary Hydroxyproline) were analysed in pre and post menopausal women. Bone formation markers, Total and Ionised calcium were significantly decreased ( $p < 0.001$ ) and Alkaline phosphatase was significantly increased ( $p < 0.001$ ) in postmenopausal women compared to premenopausal women. Bone resorption markers, Urinary hydroxyproline excretion was significantly increased ( $p < 0.001$ ) in postmenopausal women. The results from this study suggest that simple, easy, common biochemical markers can still be used to assess the bone turnover in postmenopausal women and hence their risk of developing osteoporosis and fractures.*

### KEY WORDS

*Postmenopausal osteoporosis, Urinary Hydroxyproline, Alkaline phosphatase*

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### Address for Correspondence :

**Dr. Vidya.S.Patil,**

Assistant Professor,

S.D.M College of Medical Sciences and Hospital,

Sattur, Dharwad-580009, Karnataka.

E-mail: vidyashankar02@yahoo.co.in