

Status of 1,25 Dihydroxy cholecalciferol Vit. D3 and calcium and phosphorus in post menopause

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ABSTRACT

Menopause is a major physiological event associated with metabolic changes the study comprises 50 post menopausal and 50 ideal weight healthy premenopausal women (control). The following Biochemical parameters serum calcium, phosphorus and 1,25 dihydroxy cholecalciferol were estimated. The significant changes found in calcium phosphorus and vit-D3 when compared to control.

Key words: Postmenopause, 1,25, Dihydroxy cholecalciferol.

INTRODUCTION

Menopause is a normal event of women's life associated with hormonal changes¹ these changes may lead to bone related problems. Abnormal mineral metabolism leads to bone related problems like osteoporosis, arthritis etc². This has led to hypothesis that can decrease in calcium, phosphorus and vitamin D3, which is responsible for the cause of bone related problems in post menopause. The study was control group and 50 post menopausal healthy premenopausal women (30-40 year age) of control group and 50 post menopausal women (45-55 year age) of case group. The fasting blood sample was collected from each subject and serum, calcium, phosphorus were estimated using fully automatic Biochemistry

analyzer and 1,25 dihydroxy cholecalciferol was estimated by using Radio immunoassay method.

From the table 1

The significant decrease in calcium, phosphorus level in postmenopausal group was observed when compared to control group.

From the table 2

Significant decrease was observed in 1,25 dihydroxy cholecalciferol level in postmenopausal group when compared to control group. The hormonal changes like fall in estrogen etc. which occurs in post menopause leads to metabolic changes³ which affect calcium and phosphorus level and same way decrease vit D3 level it also results in to low calcium, phosphorus level in menopause⁴.

Table 1: Comparison of Serum, Calcium, Phosphorus level in postmenopausal women and control group

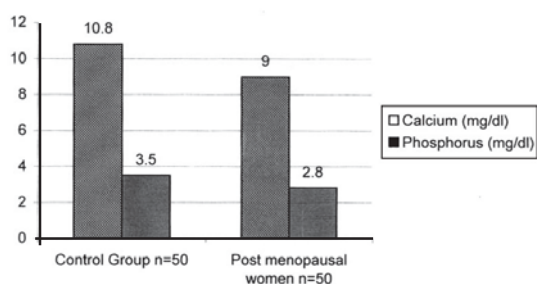
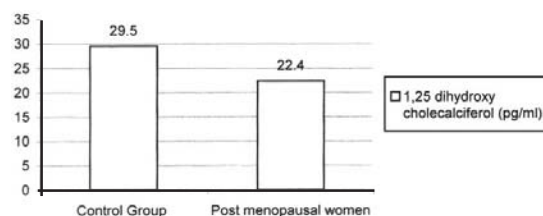
S. No.	Parameters	Control group n=50	Post menopausal women n - 50	Pvalue
1.	Calcium (mg/dl)	10.8±1.2	9±1.6	<0.05
2.	Phosphorus (mg/dl)	3.5±0.8	2.8±0.6	<0.05

Table 2: Comparison of Serum 1,25 dihydroxy cholecalciferol level in postmenopausal women and control group

S. No.	Parameters	Control group	Post menopausal women n = 50	Pvalue
1.	1,25 dihydroxy cholecalciferol (pg/ml)	29.5±6.1	22.4±5.7	<0.001

The decrease vit D3 level may also be because of low estrogen level in post menopausal age⁵. These important findings show that decrease calcium, phosphorus and 1,25 dihydroxy cholecalciferol in

post menopause definitely leads to bone related problems like osteoporosis, joint pain, etc. and if we treat these biochemical changes timely we can minimize the problem related to post menopause and promote the feeling of well being.

**Fig. 1****Fig. 2**

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