

Profile of Hematological Values in Menopausal Women

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Abstract

Menarche and menopause are very important turning phases in the life of a female and are associated with hormonal changes. These hormones affect the overall personality however menopause is also associated with varied menopausal symptoms. Tolerance to these symptoms arising from hormonal fluctuations is decreasing and incidence of hysterectomies in early menopausal age group is increasing. How far is this justified? Keeping this in mind, the present study was carried out for menopausal females to estimate their hematological values and compare them with normal adult values.

KEYWORDS: Menopause Hematological Parameters

INTRODUCTION :

Physiological variations in hematological values according to age, sex, race, region during pregnancy and menstruation is a documented fact. (1) The present study was undertaken with an objective to find out effect of menopause on these values in Indian females. There are wide variations in the menopausal symptoms ranging from changes in the temperament to hot flushes, cramps in the legs, premenstrual headache and bleeding from the gums and watering from the eyes.(2) Menstrual changes more frequently; complaints of polymenorrhoea and menorrhagia are observed. These are observed so frequently that these are commonly diagnosed as fibroid uterus and hysterectomy is performed. The incidence of early hysterectomies is on an increase. Most of the menopausal symptoms are correlated with blood loss and thinking that further delay will deteriorate the picture, an early hysterectomy is done without waiting for the physiological menopause to occur. It was intended to study the effect of sex hormones on various age groups; as it is known that these hormones affect the hematological values. The effect is specifically seen in females on deprivation of sex hormones in menopausal age group. Seeing this increasing trend of hysterectomies in working females and also in other well to do families it was thought wise to find out if there is really a marked change in the hematological parameters of menopausal age group as compared to normal group.

MATERIAL AND METHODS :

30 females of menopausal age group ranging between 45-50 years were selected for the present study. The females were screened for any major illness. The females suffering from any major disorders were excluded. The females with some menopausal complaints were only included. Informed consent was taken prior to the study. The parameters studied were as follows. 1) Hb % 2) RBC count 3) ESR 4) PCV 5) Platelet count 6) Reticulocyte count. Hb estimation was done by Sahli's method. RBC were counted by Neubauer's chamber. ESR and PCV were done by Wintrobe's method. Platelet count was done by Rees-Ecker method. The Reticulocyte count was done by slide staining with retic stain.

OBSERVATION AND RESULTS:**TABLE I: HAEMATOLOGICAL PARAMETERS**

PARAMETER	MENOPAUSE GROUP(MEAN)	S.D.
Hb gm%	11.37	1.27
RBC million/cmm	4.05	1.01
ESR mm at end of 1hr	17.34	11.86
PCV %	47.15	9.73
PLATELET COUNT lac /cmm	1.22	1.17
RETICULOCYTE COUNT	0.87	0.59

From the present study it was found that the mean Hb% of the study group was 11.37 gm%. The mean RBC count was 4.05 million/cmm. The mean ESR at the end of 1 hour is 17.34mm. The mean PCV was found to be 47.15%. The platelet count was 1.22 lac/cmm. The observed retic count was 0.87. The normal reference values for the Indian females were referred for the comparison.

DISCUSSION:

From above results it is clear that the Hb%, RBC count and PCV were not deviated from the normal values for adult Indian females. The ESR showed values above 20mm at the end of first hour in 50% of the subjects. This could be due to any acute or chronic infection in the subjects or some alteration in the fibrinogen content of the blood of in the menopausal age group.(3) The platelet count is decreased in 60% subjects which can be regarded as a significant change. This explains the cause of increased bleeding tendencies in the menopausal age group. However, the decreased platelet count may be due to decreased marrow activity with age or an effect of decreasing hormones with the age.(1, 4) Oestrogen

hormone has been implicated as an indicator of erythropoiesis.(5) A diminished level of this hormone in menopause is associated with increased level of Hb. (6) It is also suggested that oestrogen has a possible suppressive effect on erythropoietin induction.(7) However, our study showed no such changes. There was a decrease in the RBC count, Hb, PCV in the menopausal women. Some of the studies showed rise in hematological parameters.(8,9) No significant difference in the PCV was shown by some studies.(10) The increased ESR and decreased platelet count in the menopausal group appears to be a significant alteration and needs further study. Estimation of fibrinogen content of blood along with Bleeding time and Clotting time will help us in further evaluation. Estimation of female sex hormones in menopausal age group will definitely guide to the explanation. The limitation of the study is the less sample size. More number of subjects could have given better explanation.

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