

SHORT COMMUNICATION

Plasma Pyridoxal Phosphate in Women Taking Oral Contraceptives Since at Least Five Years

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Vitamin B₆ is active as coenzyme in many reactions involving transaminations and transcarboxylations. In women taking oral contraceptives (OC) containing estrogens the function of pyridoxal phosphate (Pal-P) as a coenzyme in the niacintryptophan pathway may be altered (1, 2, 3). The need for vitamin B₆ in these women therefore might be somewhat higher than in normal, nonpregnant females.

Based on rather small groups of women Bossé & Donald (4) concluded that "the majority of OC users do not have a higher requirement for vitamin B₆ than non-users". The problem is, however, how big this majority or rather how large the minority might be with a higher need for vitamin B₆ when taking OC.

At the Prenatal Clinic of Sundsvall Hospital plasma Pal-P has been determined in 290 healthy women taking OC, 275 of whom had been on OC since more than five years. The pills contained at least 30 µg estrogen and were used in periods of 25 days. At the same time oral glucose tolerance tests were performed. Pal-P was determined according to the method by Hamfelt (5). The normal range for this age group is 20 - 60 nmol/l.

Of the 275 women on OC since more than 5 years 25 or 9 % had Pal-P below 10 nmol/l. As many as 117 or 43 % had values less than 20 nmol/l, which is considered to be the low normal limit in our laboratory. Only 9 had levels above 60 nmol/l, the upper normal limit. There was no correlation between the outcome of the oral glucose tolerance test and the level of Pal-P.

Fifteen women were followed from the start of OC. Pal-P was determined at the start, after 3 months and after 6 months, in two instances also after three years. Three out of these 15 showed decreasing values to below normal, i e below 20 nmol/l.

As has been stated before the majority of women on OC have normal plasma levels of Pal-P. There is, however, a minority in our series of

cases about 9 % who show definitely low levels of Pal-P while taking oral estrogens since many years. Although they did not show any clinical symptoms of malnutrition, it might be considered a suitable precaution to advice long time users of OC to increase their consumption of pyridoxinrich foods or, possibly, to take extra vitamin B₆ as such.

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