**Does palm oil vitamin E reduce the risk of pregnancy induced hypertension?**

ABSTRACT

In view of the high anti-oxidative potential oftocotrienol, the role of the tocotrienol-rich fraction (TRF) of palm oil in preventing pregnancy induced hypertension (PIH) was explored in a randomized double-blind placebo-controlled clinical trial in an urban teaching hospital. Healthy primigravidae were randomized to receive either oral TRF 100 mg daily or placebo, from early second trimester until delivery. Out of 299 women, 151 were randomized into the TRF arm and 148 into the placebo arm. A total of 15 (5.0%) developed PIH. Although there was no statistically significant difference in the incidence of PIH (4/151 or 2.6% in the TRF arm vs. 11/148 or 7.4% in the placebo arm, p = 0.058) between the two arms, there was a tendency towards a lower incidence of PIH in the TRF arm compared to the placebo arm. With TRF supplementation, the relative risk (RR) of PIH was 0.36 (95% CI 0.12-1.09). In conclusion, although TRF from palm oil does not statistically significantly reduce the risk of development of PIH in the population studied, the 64% reduction in incidence of PIH is substantial. The findings warrant further clinical trials, particularly in high risk populations.

**Keyword:** Preeclampsia prevention; Randomized controlled trial; Palm oil; Tocotrienol