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Gestational hypertension in relation to diet of women in Udaipur city

R. MOGRA AND J. SURANA

A prospective study was conducted on one hundred pregnant women (free from any disease) aged between 20-40 years and having systolic blood pressure 140 mm Hg or higher and a diastolic blood pressure of 90 mm Hg or higher, after completing 20 weeks of gestation. Results revealed that majority of women were Hindu (85%), graduate (41%) and housewives (82%). Mean height, weight and BMI among the subjects were 153.28 cm, 59.6 kg and 23.9 kg/m^2, respectively. Information on blood pressure revealed that systolic blood pressure of majority of subjects (88%) was in range of 140-159 mm Hg (Stage 1), whereas 86 per cent subjects had diastolic blood pressure in Stage 1 (90-99 mmHg). Information on nutrient intake revealed that intake of fat 38.07 g/d), vitamin C (71.69 mg/d), sodium (5.21g/d) and folic acid (1.18 mg/d) was higher whereas energy (1118.71 Kcal/d), protein (34.37g/d), carbohydrate (159.71g/d), fibre (5.23g/d), calcium (504.06mg/d), iron (10.13mg/d), β-carotene (1464.72 µg/d), thiamin (0.973mg/d), riboflavin (0.847mg/d), niacin (7.26mg/d), potassium (1155.45mg/d) and zinc (3.91mg/d) consumption was lesser compared to RDA. Correlation analysis between selected nutrients and blood pressure revealed that there was a negative correlation of protein with the diastolic blood pressure and potassium and calcium with the systolic blood pressure during pregnancy while sodium, folic acid and zinc were not significantly correlated with the blood pressure during gestational hypertension.

Key Words : Gestation, Hypertension, Toxemia, Odema, Diet

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INTRODUCTION

Gestational hypertension or hypertension during pregnancy is defined as a systolic blood pressure of 140 mm Hg or higher or a diastolic blood pressure of 90 mmHg or higher, occurs after 20 weeks gestation in previously normotensive women (Nadkarni *et al.,* 2001). It is the most common medical disorder which has been identified as a major world wide health problem, associated with increased perinatal morbidity and mortality. The frequency of hypertensive disorders of pregnancy have been found to be between 7-10 per cent (Waller, 2006). As a result of gestational hypertension, placental abruption (premature detachment of the placenta from the uterus), intrauterine growth restriction (poor fetal growth) and stillbirths may occur in some pregnancies. The most common symptoms of gestational hypertension are increased blood pressure, oedema, sudden weight gain, visual changes such as blurred or double vision (only in severe cases of gestational hypertension), nausea and vomiting, dizziness. To date, there is no known cause for pregnancy induced hypertension. It is thought that the condition may begin in early pregnancy, during embryo implantation.

Since the period of pregnancy is one of the most vulnerable periods for the deficiencies to occur, this can affect both mother and fetus and lead to various complications like malnutrition and gestational hypertension. Maternal undernutrition due to an insufficient food supply places a mother and her fetus at risk. Therefore, the study has been planned with the objectives to assess nutritional status of women suffering from gestational hypertension and to find out correlation of diet with the gestational hypertension.

METHODOLOGY

One hundred pregnant women aged between 20-40 years

MEMBERS OF RESEARCH FORUM

Author for correspondence :
R. MOGRA, Department of Foods and Nutrition, College of Home Science, Maharana Pratap University of Agriculture and Technology, UDAIPUR (RAJASTHAN) INDIA

Associate Authors' :
J. SURANA, Department of Foods and Nutrition, College of Home Science, Maharana Pratap University of Agriculture and Technology, UDAIPUR (RAJASTHAN) INDIA