

## Efficacy of Kokam health drink in obesity

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Received: 25.09.2012; Revised: 06.11.2012; Accepted: 06.12.2012

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■ **ABSTRACT** : *Garcinia indica* (Kokam) is an Indian spice. The rinds of garcinia fruits are the richest source of hydroxycitric acid. Hydroxycitric acid is having a nutraceutical potential for obesity. By taking into account the nutraceutical properties of kokam health drink was prepared as a therapeutic food supplementation. About 100ml diluted form of health drink was given for six months of period to ninety adolescents (18 to 21 years in age) from Kolhapur, Sangli and Ratnagiri district in western konkan of Maharashtra. The efficacy of kokam health drink was assessed after examining and comparing the data about nutritional status of the obese adolescents after supplementation. The result of serum cholesterol found reduced from 300mg to 215 mg/100ml, triglyceride levels noted decreased from 200 mg to 116 mg/100 ml of blood among selected obese adolescents.

■ **KEY WORDS** : Obesity, Kokam health drink, Supplementation, Anthropometric measurement, Biochemical analysis

■ **HOW TO CITE THIS PAPER** : Kaamble, R.M. and Pillai, Priya (2012). Efficacy of Kokam health drink in obesity. *Asian J. Home Sci.*, 7 (2): 508-513.

Obesity is the greatest threat to global public health due to increased consumption of fats and oils, junk foods, decreased intake of complex carbohydrates, eating hotel foods, ready to eat food, skipping meals and of sedentary lifestyle (Dumin, 2009). According to 'World Health Organisation' 22 million adolescents (under 20 years of age) are obese. Obesity is evolving as a major nutrition problem in developing countries especially like India which has affected a substantial number of adolescents and adults, resulting in an increased burden of chronic disease. Now a day's fraudulent therapies are used by obese population for reducing their body weight. However they are not successful in reducing their body weight. However they are not successful in reaching their goal. Due to colourful and emotional advertisement regarding food formula, supplementations, beverages, instruments and body weight reducing treatments these obese people are facing harmful side effects and health problems. However, Indian spices having much more medicinal and nutraceutical properties. *Garcinia indica* (Kokam) is a moderate sized, evergreen tree. It bears sweet-sour mixed fruits native to South East Asia and India. The fruit of *Garcinia indica* (kokam) has been traditionally used in food preparations. The

fruit rind of kokam is of commercial importance which is used in the preparation of kokam products (Dudeja, 2008). Hydroxycitric acid is the main active component present in the rinds of the kokam fruits. This component prevents weight gain by inhibiting synthesis of fatty acids. It impair activities of the enzyme ATP citrate lyase that converts the unspent calories into fat (Walls, 2009). Such medicinal value and nutraceutical potential of kokam and its food products cannot be overemphasized. Hence, Kokam health drink was prepared and supplemented to obese adolescents to assess the impact on their nutritional status especially body weight reduction and lipid profile.

### ■ RESEARCH METHODS

#### Formulation of Kokam health drink :

Kokam health drink was formulated with the different variations of ingredients used for its preparation.

#### *Kokam stock solution and artificial sugar:*

For the preparation of Kokam health drink, Kokam stock and artificial sugar were used in different variations like 100:100, 100:75, 100:50 and 100:25 g.