

## 3<sup>rd</sup> Indo-Global Summit & Expo on **Healthcare**

October 05-07, 2015 New Delhi, India

### **Iodine deficiency and congenital malformation: Study in a goiter endemic zone in Assam**

**Hemonta Kr Dutta**

Assam Medical College & Hospital, India

**Purpose:** Iodine deficiency is one of the major nutritional public health problems in India. Iodine deficiency during pregnancy causes wide spectrum of disorders and congenital malformations (CM) in the fetus. Earlier studies have shown higher prevalence of endemic goiter and CM among the tea garden population in Assam. The present study is aimed to find out the iodine nutritional status among pregnant tea garden workers and its effect on the fetus.

**Methods:** Estimation of Urinary Iodine (UI) level in casual urine samples was done in each trimester in 312 pregnant women (age 18-35 years). Detailed information was obtained regarding food habits, source of drinking water, type of salt consumed and obstetrical history. Urine samples from 200 age-matched non-pregnant women from the same community were taken as controls.

**Results:** Mean and median UI values were within normal limits in all pregnant women. Significantly higher values were noted during the second trimester and among the older women (26-35 years) ( $p < 0.05$ ). Goitre was recorded in 14.1% of the women mostly among multigravida and younger women. 24 babies were born preterm. Malformations were noted among 32 babies. In the control group 5 women had low UI and high TSH values requiring treatment.

**Conclusion:** Normal UI recorded in the study may be because of universal consumption of iodized salt. Presence of Goiter in 28 women suggests iodine deficiency in the past or may be caused by goitrogenic food. Factors other than iodine deficiency may be responsible for higher incidence of CMs noted in this study.

#### **Biography**

Hemonta Kr Dutta, MS, M.Ch., presently working as Associate Professor and Head of Pediatric Surgery at Assam Medical College & Hospital, Dibrugarh, Assam, India. After his MBBS and MS in General Surgery from Assam Medical College, he obtained his MCh in Pediatric Surgery from AIIMS, New Delhi in 1998 and received the prestigious Prof. M. Rohatgi Gold Medal. In 1999 he joined his alma matter as Assistant Professor and became head of the department in 2011. His research interest lies in pediatric oncology, pediatric urology and birth defects. He has 68 research publications in peer reviewed journals and over 90 citations. He has published 4 technical innovations in the field of pediatric surgery. He is currently the Editor of the *Journal of Association of Surgeons of Assam* and Editorial Board Member of *Journal of Progress in Pediatric Urology*, *Journal of Pregnancy and Child Health*, *American Research Journal of Nursing*, and *SM Journal of Pediatric Surgery*.

[hemontdutta@gmail.com](mailto:hemontdutta@gmail.com)

#### **Notes:**