

Prevalence of overweight and obesity in infancy

Obesity and overweight is a worldwide problem. Recent surveys from National Health and Nutrition Examination Survey (NHANES) have shown that prevalence of overweight increased from 5% to 13.9% for those aged 2-5 years; 6.5 to 18.8% for ages 6-11 years¹. Similarly, obesity level in South Australia has jumped by more than 8% since 1993 with one in five young children are overweight or obese. In Britain the prevalence of obesity in children aged under 11 years has reported to be increased from 9.9% in 1993 to 13.7% in 2003². Furthermore, 9,000 premature death per year are reported to be due to obesity and considered to be alarming in England³.

Generally being overweight or obese increases the risk of many diseases and health conditions such as coronary heart disease, hypertension, hyperlipidemia, diabetes, stroke, gall bladder disease, osteoarthritis, sleep apnea, respiratory problem and so on.

It is true that obese or overweight babies are pretty looking, but their life is going to be hazardous. Not all obese infants become obese and not all obese children become obese adult. However, obesity at early childhood will persist throughout the life span of an individual⁴.

There is no study has been under taken on the prevalence of obesity and overweight in infancy in Bangladesh where undernutrition is a problem and overweight is ignored in infancy. Therefore, this study was undertaken to investigate the incidence of obesity and overweight in infants in a local hospital at Dhaka which has reputation for treating malnourished children coming from under privileged and low income population.

Number of babies included were 172 (116 males and 56 females) with age group 1-12 months. Inclusion criteria were weight for height >100%, double chin appearance and abdominal tires. Hanging scale, stadiometer, calculator, WHO Body mass index (BMI) from birth to two years were used as tools.

For each baby, age, sex, feeding history length/height, weight, weight for height (weight of the baby divided by ideal weight for height then percentage was calculated) and BMI (weight/height in M²) were taken then plotted in WHO BMI centile chart. For the purpose of study obesity was considered when the BMI >97% and over weight is >85% of BMI⁵.

Among study group obese was 24 (14%), over weight was 44 (25.6%) and normal was 104

(60.5%). Male babies were more obese (n=17) than females (n=7), and overweight male was 30, female was 14. Breast fed was 72 (41.9%), mixed fed was 100 (58.1%).

This study demonstrates that the prevalence of obesity and over weight in infants is 14% and 26% respectively. The contributing factors of obesity are prevailing. One of the contributing factors is: Improper idea or health image of parents plus guilty feeling of some parents of non-providing of quality foods despite them are giving adequate food.

The magnitude of obesity is going to increase in future due to unplanned rapid urbanization, small school houses, lack of play ground and insecure play ground, home entertainment like television watching and video games, excessive home work or extra coaching after school hour.

World Health Organization launches a new global Child Growth Standards for infants and children up to age of five years. They demonstrate for the first time ever that children born in different regions of the world and the optimum start of life have the potential to grow and develop to within the same range of height and weight for age. WHO has standardized BMI charts for infants to age five years, which is particularly useful for monitoring the increasing epidemic of childhood obesity.

BMI has been recommended as the best measurement for monitoring overweight in individuals in the pediatric population^{5, 6}. Several studies have reported a good relation between BMI and fatness of childhood^{6, 7}. The convenience of measuring BMI has understandably made it popular with both pediatric clinicians and epidemiologist⁸. BMI and BMI gain in infancy were correlated more strongly with adult lean mass than with adiposity or central adiposity. Higher BMI and greater BMI gain in late childhood and adolescence were associated with increased adult adiposity and central adiposity⁹.

Obesity is an excess of body fat, not an excess of body weight. The continued emphasis on BMI for routine assessment will help to detect more obese infant for early intervention. Obesity related problem is still not a major problem for Bangladesh but attention must be there.

The study concluded that the global problem of obesity is still not yet significantly affected the infants of non affluent society in Bangladesh.

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