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ABSTRACT

Childhood obesity is a condition in which a child is significantly overweight for his or her age and height. Obesity is such a disease, which provides platform for so many complications on women health like early menarche, menstrual irregularities, which may further lead to infertility as well as psychological disturbances like stress, depression. According to the World Health Organization, obesity affects 15% of women and has long-term effects on women's health. As Health status in a particular stage influences the next stage of life therefore managing obesity is of utmost important in todays era.

KEYWORDS: Sthaulya, childhood obesity, menstrual cycle.

INTRODUCTION

In Ayurvedasthaulya is described as 'Medoroga' as there is excessive accumulation of meda and mamsa. It is considered as one of santarpana vikaras. AcharyaCharaka has mentioned Atisthaulya as one of the Ashtaninditapurusha. In modern it is correlated to obesity which is one of the metabolic disorder. Continuous indulgence in high fatty food, fried items, etc., along with sedentary life-style leads to excess accumulation of body fat which gets deposited in the numerous body channels. In this modern era and fast moving life many drastic changes have taken place in dietary habits, modes of life style, various regimens of life style. Majority of individual are habituated to sophisticated and comfortable life style. This results in many metabolic disorders. These are popularly referred as life style disorders and obesity is one of them.

OBESITY IN CHILDREN

In children – BMI for age and gender can be derived from CDC chart Over weight – 85-95 percentile Obesity - > 95 percentile

IMPACT OF AHARA ON OBESITY

Atisampurnada- i.e. eating in excess specially atiguru, madhura, sheeta, snigdha, shleshmaahara, and doing Adhyashanathat is frequently eating again and again when previously eaten food is not digested. Forced feeding by over conscious parents can also leads to obesity

Example: Giving excess of dry fruits. Although dried fruits are rich in nutrients, they are also high in calories. Overconsumption can lead to excess calories, leading to unwanted weight gain.

Consumption of ultra-processed foods like packaged snacks, sugary drinks, ready to eat meal is associated with an increased risk of obesity, diabetes, and cardiovascular disease.

Children used to consume one snack a day, while 1 in 5 school-age children now eats up to six snacks a day.

IMPACT OF VIHARA ON OBESITY

- 1. Avyayama- Lack of physical activity
- 2. Diwaswapna- excessive daytime sleep
- 3. Lifestyle change: Better social and economic environment has changed the lifestyle of people; overeating and overindulgence in wrong foods has led to obesity.
- 4. Children playing less outdoor games and sitting inside using mobile phones whole day.

IMPACT OF ENVIRONMENTAL FACTORS ON OBESITY

Environmental pollutants, Environmental surroundings – in this school inactivities and at home watching TV, screen space, social networking, video games and not indulging in outdoor games .Lack of readily accessible places nearby like parks or play grounds for physical activities. Transportations to school no walk or activities, now transportation directly to school and get back to home.

HEALTH IMPLICATIONS OF CHILDHOOD OBESITY

Impact of obesity on menstrual cycle Amenorrhea

In obesity there will be more adipocytes which will secrete more amount of leptin hormone this leads to desensitization of leptin hormone resulting in negative feeedback of leptin hormone signalling to Reduced GnRH hormone production causing disruption of HPO axis causing Amenorrhea.

Early menarche

In obese there will be more fat deposition means more adipocytes where there will be more aromatization of androgens to estrogen leading to higher level of circulating estrogen which will accelerate the onset of early menarche.

Leptin Influences the hypothalamic pituitary gonadal axis hence accelerate the timing of menarche

Oligomenorrhea

In few women, the pattern of menstruation extends to cycle lenght exceeding 35 days. Many of these women are obese. This is caused due to disruption in H-P-O Axis because of hormonal imbalance in obese.

Menorrhagia

Increased adipose tissues in obese will cause more aromatization of androgens to estrogens this increased estrogen causes increase in endometrial thickness hence there will be excessive shedding of thickened endometrium.

IMPACT OF CHILDHOOD OBESITY ON FUTURE INFERTILITY

Obesity constitutes a substantial and adverse health condition with wide-ranging implications for reproductive health. In females, obesity can give rise to a multiple issues that profoundly affect the reproductive process, encompassing challenges related to oocyte quality, hormonal imbalances, metabolic disruptions, and endometrial dysfunction. This multifaceted impact on reproductive health is of paramount significance.

IMPACT OF OBESITY ON SOCIAL PSYCHOLOGY

Obese children and adolescents may experience psychosocial sequelae, including depression, bullying, social isolation, diminished self-esteem, behavioural problems, dissatisfaction with body image, and reduced quality of life. Compared with normal-weight counterparts, overweight/obesity is one of the most common reasons children and adolescents are bullied at school. The consequence of bullying, and teasing related to childhood obesity can have severe implications for emotional and physical health and performance that can persist later in life.

DISCUSSION

The problem of obesity is increasing in children and adolescents. Almost 50% obese children become obese adolescents, and almost 80% of them become obese adults. Because obesity is an endocrine-related disease/dysfunction, it is potentially sensitive to endocrine disrupting chemicals. In addition to the wellestablished modern societal influences of over-nutrition and lack of exercise, exposures to these chemicals are also contributing to the rapid rise in cases of obesity. Therefore as said in ayurveda dincharya such as vyayama, udwartana should be followed on daily basis. Ayurveda also mentions garbhini paricharya which can be followed when the child is at risk of developing obese for example child to be born to obese parents.

CONCLUSION

Obesity in children if not taken care of will result in further obesity in adolescense and later stages of life, in women since childhood obesity affects her health as in early stage it leads to precocious puberty. Later after attaining menarche it leads to menstrual irregularities which eventually results in Infertility in her reproductive period. Also now a days even at young age PCOS problem is arising due to these changed lifestyle. A combined diet and physical activity intervention should be followed because what children learn at home about eating healthy, exercising and making the right nutritional choices will eventually spill over into further aspects of their life.

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