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EARLY MENARCHE: A SOCIAL ISSUE AMONG SCHOOL GIRLS AND ITS ASSOCIATED FACTORS

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INTRODUCTION

Menarche is the most important milestone in a girl's reproductive system which is the first menstrual period. Nowadays because of faulty lifestyle and food habits (Modern lifestyle) ,the normal age of menarche has been dropping for the past few years. Both genetic and non-genetic factors have been found to influence the onset of menarche. Many studies have been carried out in both national and international level to study various factors affecting menarcheal age. Menarche is not just a moment during pubertal progression. Its timing, especially when early, may be associated with several health problems in adolescence and adulthood. This article highlights the need for increased awareness of and efforts to prevent early menarche.

KEYWORDS: Early Menarche, Menstruation, Associated factors, School girl To describe and assess key aspects of early menarche or its associated factors in school girls.

MATERIAL AND METHODS

Various Samhita, Websites, Google scholar, Articals were reviewed for this article.

Review of Literature

Ayurveda has given importance to the onset of menstruation (menarche). The changes during puberty are explained as Romaraji utpatti, Artava pravritti at the age of 12 years by all the

acharyas which is considered under balyavastha. In parashara samhita he explains that the age of menarche, while explaining the synonyms of stree in different age as- stree is called Gouri at 8 years of age, Rohini at 9 years, Kanya at 10 years and Rajaswala after 11 years. Appropriate age of menarche given in ayurvedic Samhita according to Acharya Sushruta, Vagbhata and Kashyapa is 12 years. If the changes occurs before or after this age, it is taken as precocious or delayed puberty respectively. In Kashyap Samhita explained that menarcheal age is may be influenced by specific ahar(specific diet) and Arogya(health status).

वत्सराव्दादशादर्ध्वं याति पंचशिः क्षयम् ॥ अ.हृ.शा. १/७

ि्द् वर्ाद् व्दादशाि् काले विामानमसृक् पुनः। जरापक्वशरीराणां याति पञ्चाशि: क्षयम् ॥ - सु.शा.३/११

योतर्िश्चोनव्दादशाि्ीिपञ्चाशद्वर्ाया रजस्ि्यादय इति । - अ.सं.शा.१/२१

बालानाम् अतप वय: पररणामाि् शुक्रस्य प्रादुर्ावो वेति रोमराज्य आदयश्च तवशेर्ो नारीणाम् ॥ – सु. .सू.१४/१८.

Stages of puberty / Tanner stages

1. Breast development (Thelarche)
2. Growth of pubic and underarm hair (Pubarche)
3. Menstruation (Menarche)

The onset of female puberty is marked by thelarche (breast budding), which typically occurs after eight years of age. Thelarche is followed by pubarche (pubic hair development), growth spurt, and finally, menarche.

Early Menarche

If the onset of menarche takes place below 12 years of age then those girls were classified under Early Menarche.

Causes: To get a thorough understanding of the causative factors, reviewed the modern literature. The reviewed studies are described in the following subgroups.

Studies on Nutritional Factors and Menarcheal Age. Studies on Body Composition and Menarcheal Age. Studies on Physical Activity and Menarcheal Age. Studies on Place of Living and Menarcheal Age.

Studies on Environmental Factors and Menarcheal Age. Studies on Socioeconomic Status and Menarcheal Age. Studies on Genetics and Menarcheal Age.

Studies on Family Experiences and Menarcheal Age. Studies on Secular Trend and Menarcheal Age.

Studies on Miscellaneous Factors and Menarcheal Age. Studies on Consequences of Early Menarche

After reviewing concluded that various causative factors are available for early menarche. They are

Genetic factors : Black females experienced menarche three months earlier than White females as Black females presented with higher insulin responses to glucose challenges and increased free IGF-1, which are associated with skeletal and sexual maturation.

Family situation: stressful family environments, foster care and living with a stepparent, large family size effect early menstruation.

Residential area: Urban environments experience menarche at an earlier age when compared to rural .

Body stature / Body mass index (BMI) : overweight or High BMI is a risk factor for early menarche.

Food type: Those consumed more nonveg experienced earlier menarche.

Positive correlation between consumption of sugar-sweetened beverages and the early onset of menarche.

Formula feeding during early infancy causes early menarche Socioeconomic status : High socioeconomic status (SES) experience early menarche.

Effect of Early menarche

- Early menarche are more vulnerable to early pregnancy, sexually transmitted infections, and sexual violence.
- Early menarche can lead to premature fusion of the epiphyseal growth plates and a final adult height shorter than the potential genetic height.
- Early menarche leads to an increased prevalence of hypercholesterolemia, cardiovascular diseases and type 2 diabetes mellitus in adulthood.
- Early menarche can lead to Higher bone mineral density of the lumbar spine and femoral neck in older age.
- Studies have demonstrated a 23% higher risk of developing breast cancer in patients with

early menarche.

CONCLUSION

Menstruation is a natural and healthy part of a girl's development. Understanding Menstrual/Period health(physical, emotional, and social well-being related to menstruation) promotes overall health,Increased School Attendance,Enhanced Self-Confidence & Empowerment. Girls can recognize abnormal symptoms and seek timely medical assistance if needed.

REFERENCES

1. Vaidya Yaadavaji Trikamji Āchaarya ,Sushruta, Sushruta Samhita with Nibandhasamgraha commentary of Shri Dalhanaachaarya, edited Chaukhamba Surbhaarati Prakaashana, Vaaraanasi, reprint edition 2010.
2. Tewari premavati, textbook of prasuti tantra evum stri roga, Varnasi, revised and enlarged Ed:Reprint, Chaukhamba orientalia, Varanasi, 2009.
3. D C Dutta, Textbook of Gynaecology including contraception, edited by Hiralal konar, New central book agency, jaypee brothers medical publisers.
4. Eteudo A., Nto N.J., Agu A.U., Finbars-Bello E., Adiri C.O., Ezugwuorie J.O. Anthropometric and menstrual characteristics of young Igbo girls in Southeast Nigeria. *Int. J. Dev. Res.*, 2015; 5(3): 3843–3846. [Google Scholar]
5. Chumlea WC, Schubert CM, Roche AF, Kulin HE, Lee PA, Himes JH, Sun SS: Age at menarche and racial comparisons in US girls. Paediatrics, 2003; 111: 110-113.
6. Vriddha jeevaka, kashyapa samhita, sharira sthana, textbook with English translation and commentary by P V Tewari, Chaukhamba vishwa bharti, Varanasi, 2013; 135: 5-4.
7. Al-Awhadi N., Al-Kandari N., Al-Hasan T., Almurjan D., Ali S., Al-Taiar Age at menarche and its relationship to body mass index among adolescent girls in Kuwait. *BMC Publ. Health*, 2013; 13(29): 1–7. [PMC free article] [PubMed] [Google Scholar].
8. Katsunori F, Shinichi D: Relationship between change in BMI with age and delayed menarche in female athletes. Journal of Physiology and Anthropology, 2003; 22: 97-104.
9. McPherson CP, Sellers TA, Potter JD, Bostick RM, Folsom AR: Reproductive factors and risk of endometrial cancer. The Iowa Women‟s Health Study. American Journal of Epidemiology, 1996; 143(1195): 1202.
10. Wong WW, Copeland KC, Hergenroeder AC, Hill RB, Stuff JE, Ellis KJ. Serum concentrations of insulin, insulin-like growth factor-I and insulin-like growth factor

binding proteins are different between white and African American girls. J Pediatr, 1999; Sep., 135(3): 296-300. [PubMed].

11. Malitha et al. Journal of Physiological Anthropology, (2020); 39: 6 https://doi.org/10.1186/s40101-020-00218-w.
12. Balaji Ramraj, V. Meenakshi Subramanian, Vijayakrishnan G,Study on age of menarche between generations and the factors associated with it Clinical Epidemiology and Global Health.