



Short Communication

Increasing percentage of 'Early Menarche' in Indian adolescent girls and it's prevention

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1. Introduction

Adolescents (10-19 years) constitute nearly 1/5th of total population of India.¹ In girls it is a special period which signifies the transition from girlhood to womanhood and is marked with the onset of menarche. First menstrual bleeding – Menarche usually begins between the age of 9-15 years - approximately 2 to 2.1/2 years after the appearance of breast buds. The first sign of puberty² is breast budding followed by the appearance of pubic hair, axillary hair and axillary odor.

The average age of menarche as per the studies is 12.77 years.

Several studies have reported age at puberty and 'Menarche' to have declined in developed countries and the decline has also been noted in developing countries.³

The decline is mainly observed in last hundred years. As per the recent studies 34% of the girls have breast development, pubic hair appearance and onset of first

menstruation – menarche before the age of 8 years.

This worldwide trend of declining age at menarche is also seen in Indian girls. Early menarche is the underlying cause of many future gynecological disorders like endometriosis etc as well as others like cardiovascular diseases,⁴ cancers etc.⁵

"Ayurved", 'Natural Holistic Health Management' can surely overcome this important issue with all possible ways including prevention and treatment.

2. Aims and Objectives

1. Investigating the factors associated with 'Early menarche.'
2. Studying the future implications of a lower age of menarche.
3. To prepare and implement specific protocol in 'Balavastha' (childhood period) of girls using references from 'Bruhatrayi and Laghutrayi' (Ancient Ayurvedic Texts) for the prevention of early menarche.

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3. Materials and Methods

1- Investigating the factors associated with Early menarche –

While studying detail references from Bruhatrayi and Laghutrayi ‘Twelve’ and fifty years is the age of menarche and menopause respectively. Commentator Arundatta opines that these are probable ages. There may be slight variation in individual cases and age of menopause may depend on age of menarche and many factors can affect the same.

Kashyapa – The famous Ayurved author who wrote ‘Kahyapsamhita’ mentions the age as sixteen years and further explains that this age can be influenced by specific ‘Ahara’ (Specific diet) and ‘Arogya’ (Health – Lifestyle).⁶

Above references and many other clearly give us an idea that a wrong diet and wrong lifestyle may influence the age of menarche.

As per current research data available the factors triggering early menarche are –

1. Being obese – Children who are significantly overweight have a higher risk of developing precocious puberty.
2. Being exposed to sex hormones – Exposure to estrogen or testosterone in any way or any form triggers early menarche. Eg – Consumption of phytohormones is also responsible for prepubertal signs and even local application of creams or ointments containing hormones triggers menarche.
3. Having other medical conditions that involve abnormal production of male hormones, hormonal imbalance is the causative factor.
4. Other important factors are – climate –environmental factors particularly the mean annual temperature, Genetic factors - ethnic origin, physical activity and ‘Nutritional factors.

3.1. Future implications of Early menarche

1. Short height – Children with precocious puberty may grow quickly at first and be tall, compared with their peers. But because their bones mature more quickly than normal, they often stop growing earlier than usual. This can cause them to be shorter than average as adults. Early treatment of precocious puberty, especially when it occurs in very young girls – less than 9 years, can help them grow taller than they would without treatment.
2. Social and emotional problems – Girls getting early menarche – long before their peers may be extremely self-conscious about the changes occurring in their bodies. This may affect self – esteem and increase the risk of depression or abuse.
3. Other future risk factors — Girls of precocious puberty are more prone to non-communicable diseases

as they grow.

Especially they always have high risk of getting *Endometriosis, Infertility and other gynecological disorders, *cancers (specially – breast cancer, ovarian and colon cancer), also *other cardiac diseases etc.

To prepare and implement specific protocol in ‘Balavastha’ (childhood period) of girls using references from ‘Bruhatrayi and Laghutrayi’ (Ancient Ayurvedic Texts) for the prevention of early menarche.⁷

Considering the adverse effects of early menarche it’s a time now to prepare a healthy lifestyle protocol explained in ancient ayurvedic texts and implement the same for girls. Few points to highlight the natural holistic management are –

1. Try for exact documentation of the age of menarche of each Indian girl through the sources of parents, school and her paediatrician.
2. To note down the constitution of primary school girls. Compulsory ‘prakruti parikshan’ that means ‘constitution analysis’ and it’s proper documentation can be carried out.
3. Manage physical activities, sports activities of school girls.
4. Stress management in a proper delicate way must be carried out.
5. Relationship of menstrual blood and Pitta is stated in texts by explaining artavam agneyam (Sushrut sharirsthan 3/2)⁸ etc. . . . So for prevention of early menarche pitta (pitta humor – pitta dosha) and agni (digestive fire and tissue fire) must be maintained healthy. The diet protocol and stress management protocol can be planned accordingly.
6. Considering the dietary patterns association with precocious puberty the proper daily diet explained in deencharya- (daily regime) and rutucharya- (seasonal regime) can be included in the prevention protocol. Which emphasizes on maintaining healthy- kapha humor – balanced kapha dosha means prakrut kapha.
7. Considering the relationship between Aharrasaplasma dietary and plasma tissue - Rasadhātu and Raja means Menstruation - healthy normal (prakrut) plasma tissue (rasadhātu) must be maintained in girls.⁹
8. Self medication, consumption of phytohormones, artificial supplements must be prevented.
9. Child obesity in girls must be carefully prevented. Sweet intake must be restricted.
10. Use of internet must be prohibited as it may lead to certain visual exposure to hormones.
11. Proper nutrition in girls since birth must be followed.

4. Discussion

When we study ancient ayurved texts – Bruhatrayi and Laghutrayi in details we find the references¹⁰ regarding

the precocious puberty, early menarche and its prevention through many ways as explained above. The preventive measures must be started in 'Balavastha – Childhood phase of a girl.

These references guide us an importance of keeping normal healthy balanced kapha humor kapha dosha (prakrut kapha).

If we fail to maintain prakrut kapha in Balavastha then it combines with agneya pitta to start early menarche.

The daily routine should be planned accordingly.

5. Conclusion

Increasing percentage of early menarche in adolescent girls and causative factors according to ayurved texts seeks our attention and if we plan "childhood stage of a girl" "Balavastha" of a girl properly as explained in texts we can surely overcome this important problem of "Early menarche" with natural holistic health management.

6. Source of Funding

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7. Conflict of Interest

None.

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