



The Ayurvedic Perspective On Puberty And Adolescence

Nurturing the physical and emotional harmony

¹Dr.R.Vijaya santha kumari,MD (AYU),PG.DIP.YOGA

¹Associate professor,

¹Prasuti tantra and stree roga,

¹Dr.NRS Government Ayurvedic college, Vijayawada, India.

Abstract: Puberty ,a significant milestone,begins around age 8 and adolescence begins around age of 10 to 19 years,is a crucial period of physical ,emotional and cognitive growth.It is the transition from childhood to adulthood and plays a vital role in shaping future health and societal contributions.It gives challenges like early or delayed.Puberty and menstrual irregularities due to altered lifestyle .Ayurveda emphasizes a balanced regimen particularly around menarche to promote reproductive health and also provides smooth transition,addressing physical and mental health.It includes proper diet (ahara),lifestyle changes(vihara),menstrual hygiene,sex education for preventing the future gynecological disorders by various therapeutic treatments.

Index Terms - Puberty Adolescence,RajaswalaParicharya,aahara vihara

I. INTRODUCTION

Adolescence is the transitional period between the age of 10 to 19 years I.e, from childhood to adulthood . Puberty is the transition period from childhood to adult focus on physical ,biological changes leading to sexual maturity

CHANGES DURING PUBERTY:

- Physical changes,
- Emotional changes, Social development
- Adolescence is divided into three phases:
 1. Early Adolescence (10-13 years)
Growth spurt and secondary sexual characters.
 2. Middle Adolescence (14-16 years)
Separate identity from parents, new support with peer groups and opposite sex.
 3. Late Adolescence (17-19 years)
Established adult physical character, distinct identity, opinions and ideas.

CHANGES DURING PUBERTY (TANNER STAGES):¹

Stages	Breast	Pubic hair
Stage -1	Prepubertal state, Elevation of papilla	No pubic hair
Stage -2	Breast buds and papilla slightly elevated & side of labia, areola begins to enlarge (9.8 years)	Sparse, long hair on either majora (10.5 years)
Stage -3	Further enlargement of entire breast tissue	Darker, coarser & curly hair over the Mons pubis.
Stage -4	Secondary mound of areola and papilla projecting above the breast tissue(12.1 years)	Adult type hair covering the mons only (12 years)
Stage -5	Areola recessed to general contour of breast (14.6 years)	Adult hair with an inverse triangle distribution covering the thighs (13.7 years)

Classification of age	subclassification	Age limit (yrs)	Changes the in body	Status of dosas
childhood	Bala (gauri, rohini, kanya and bala etc)	10	General development	Kapha +++ Pitta and vayu+
	Kumari (premenarche or mugdha)	10-12	Deleopment of secondary sex characteristics	Kapha +++ Pitta+ Vayu+
	Rajomari(menarche established maturity stage or mugdhawsata)	12-16	Menstruation starts and cycle is fully established	Kapha +++ Pitta ++ Vayu+
			sh	
	Yuvani(yuva, taruni or praudha)	16-40	Maximum reproductive capacity full maturity	Pitta +++ Kapha++ + Vayu+

ENDOCRINOLOGY IN PUBERTY :

The levels of gonadal steroids and gonadotropins are low until the age of 6-8 years due to the negative feedback effect of Estrogen to Hypothalamic Pituitary system. As Puberty approaches this negative feedback effect of Estrogen is gradually lost. This results in some significant changes in the Endocrine function of the girl.

HYPOTHALAMO PITUITARY GONADAL AXIS:

The GnRH pulses from Hypothalamus results in pulsatile secretion of Gonadotropins.

GnRH → FSH, LH → Estradiol.

The tonic & episodic secretion of gonadotropins in prepubertal period is gradually changed to one of cyclic release in Post pubertal period.

THYROID GLAND: Plays an active role in the function of HPO axis. ADRENAL GLAND

Around the age of 7, Adrenal glands increases their activity of sex steroid synthesis (Androstenedione, DHA, DHAS), resulting the changes in different physical characteristic features like increased sebum formation, Pubic & axillary hair and change in voice are due to adrenal androgen production.

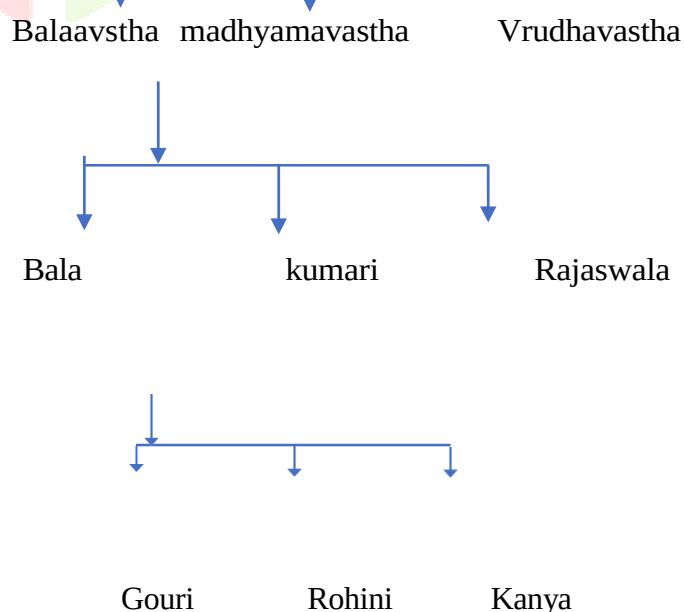
GONADARCHE: Increased amplitude & frequency of GnRH → increased secretion of FSH & LH → Ovarian follicular development → increase estrogen. Gonadal Estrogen is responsible for the development of Uterus, Vagina & breast.

LEPTIN: A Peptide, secreted in the adipose tissue is also involved in pubertal changes & Menarche.

INAYURVEDA:²

वयोयथास्थलू भेदेन त्रिविधम्- बालं, मध्यं, जोर्णत्रमत्रि ! (Cha. Vim. 8/22)

Stree Ayu



BALA:

आषोडशिवेद्वालारुत्रीतिशामिः। पञ्चपञ्चशियावत्प्रौढावृद्धाः परम्॥ (शब्दकल्पद्रुम)

Bala can be called Gouri till 8 years, Rohini till 9 years, Kanya till 10 years.

After 10 years she is termed as Rajaswala until menarche.³ RAJASWALA:

When a Female attains menarche is termed as Rajaswala.

Acharya Vagbhata mentions as 12 years. Acharya Kasyapa mentions the age as 16 years which corresponds to the age of conception and influenced by Ahara & overall health of an individual.

A female is termed as Stri around the age group of 16 years is considered as reproductive age. Kapha Dosha is predominant in Balya Avastha and is responsible for growth, development and nourishment in early adolescence period from 10 to 14 years. The late phase of adolescence is 15 to 19 years, Pitta Dosha is predominantly responsible for metabolism, sexual & reproductive system maturation.

AIMS & OBJECTIVES:

- To promote & maintain the health of adolescence & puberty.
- To prevent Psychological disorders.
- To prevent reproductive health.

COMMON PROBLEMS IN ADOLESCENCE:

Morphological problems: Overweight, Underweight, Over growth of hair, Hair loss. Abnormal growth of Genitalia and breasts.

Nutritional problems: Malnutrition, Obesity, Iron deficiency, Iodine, Calcium, Vitamin A, Zinc deficiency.

Eating disorders: Anorexia Nervosa, Bulimia nervosa.

Growth and Development Problems: Precocious Puberty, Delayed Puberty, Short stature. Reproductive

Health Problems: Sexually Transmitted diseases, Reproductive Tract infections, Poly Cystic Disease.

MENSTRUAL PROBLEMS: Delayed Menarche, Premenstrual syndrome, Puberty Menorrhagia, Secondary Amenorrhea, Dysmenorrhea.

HORMONAL PROBLEMS: Hypothyroidism, Diabetes Mellitus, Acne vulgaris, Hirsutism.

PROBLEMS: Depression, Mood swings, Sleep Disturbances, Anxiety, Suicidal Tendency and Behavioural disorders.

PSYCHOLOGICAL

BEHAVIOUR PROBLEMS:

Abuses: Alcohol, Smoking, Cocaine. Sexual Offence: Rape, Incest prostitution Factors influencing health & Development of Adolescence:

- Positive family environment, caring and meaningful relationship.
- Positive school performance,
- Encouragement for self-expression.

Ayurveda focuses on nurturing the adolescent & puberty by providing specific guidance on diet, lifestyle changes, Rajaswala paricharya, sex education.

DIET:

Nutrition is an important factor for growth & development of adolescence. Proper nutrition during adolescence by providing nutrients — Proteins, fats, Carbohydrates, Vitamins, & Minerals through cereals, legumes, fruits, vegetables and animal products (Dairy, Meat, Poultry & Nuts) are essential for growth and development. Poor eating habits, inadequate nutrition can stunt growth, impair intellectual development and delay sexual maturation. Skipping meals, frequent use of fast foods can negatively affect health. Commercial ads promoting products like steroids, weight reducing drugs further harm the adolescence nutrition.

Adolescence needs about 2200 calories per day. Iron deficiency condition is common in girls due to menstruation & poor diet lead to Anemia. Iron rich diet like green—— leafy vegetables, meat citrus fruits are recommended. zinc is essential for growth and sexual maturation found in beans, nuts, meat & dairy products.

LIFESTYLE:

Lifestyle modifications are crucial for physical, mental and spiritual wellbeing.

Ayurveda emphasizes practices like Dinacharya, Ratricharya and Ruthucharya. Regular practices like Yoga promotes body, mind coordination, reduces stress. Surya Namaskara helps to prevent Obesity, Metabolic issues and Hormonal imbalances. Daily physical activity such as swimming, cycling, Dancing improves cognitive development, Academic performance and overall, well-being.

RAJASWALA PARICHARYA:

रसादेवरजाः स्त्रीर्मात्रसमात्रसत्र्यहंस्त्रवेि। (Bha. Pra. Pu.3/204)

Rajas is the periodical discharge occurring in woman for 3 days in a month⁴

Rajaswala Charya	Application
Take the food of Kshaireya, yavaka and Milk, holding it either in a leaf, earthen plate or the hands. Avoid Tikshna, ushna, amla, lavana ahara	Take the food in less quantity, light diet. Avoid Spicy, fatty diet, bakery diet in order to prevent the vitiation of vata dosha and purification of digestive system.
Avoid Divaswapna, Anjana, Ashrupata, Snana, Lepana, Abyanga, Nakhachedana, Hasana, Kathana, Ati- shabdasravana	Avoid hard labor and exercise and take rest and restore energy.
Follow the Bramhacharya	Keep your mind calm and relaxed, stop tension and anxiety as much as possible
Darbhasamstarashayini	Sleeping on the darbha mat to get relief from backache and body ache

Function and nature of Arthava:

आणवमाग्नेयम्.....! (Su.Sha.3/3)

Arthava is agneya having the characteristics of Rakta.⁵ Suddha Arthava Lakshana:

शशास्त्ररत्रिमंयत्तुयद्वालाक्षारसोपमम्। िदाणिं वंशं सत्रतियद्वासो न त्रवरजयेि।। (Su. Sha. 2/17)

resembling the color of Rabbit blood, Juice of Lac & does not stain the cloth.⁶

RAJASRAVA KALA:

The duration varies according to different authors: Bhavamisra- 3 days,

Vagbhata- 3 nights,

Charaka- 5 nights

Haritha- 7 days,

Bhela- 5 days.

AHARA:

Women consumes gritha, ksheera, Madhura rasa pradhana ahara are cheerful. Kapha prakruti retains arthava for longer duration. It gives nourishment to the tissue, provides energy and enhances immune system.

VIHARA:

- Avoid stressful activities,
- Ratrijagarana,
- Vyayama,
- Krodha, Shoka,
- Will increase the Rajo guna and make the woman's condition more stressful.

HYGIENE:

During puberty stage female observe growth and sexual activity. Cleanliness of genital area and safe menstrual hygiene reduces the risk of rashes in genitalia, urinary tract infection.

Hygiene measures during menstruation:

- Change a sanitary pad once every six hours & tampons every 2 hours to prevent infections.
- Woman with sensitive skin avoid sanitary pads with plastic lining causes irritation, itching.
- Clean the vaginal area using warm water after each use of toilet.
- Always pat the vaginal area dry after every wash.
- Wearing comfortable, loose clothing rather than Jeans, or tight fitting during menstruation.

SEX EDUCATION:

Sex education is a very important part of Adolescent girl. It includes information about Puberty, Menstruation, Contraceptives, Condoms, Sexual violence, Prevention, Gender identity. It educates about the health issues related to sex and reduces the teenage pregnancy.

Some of the medical conditions at puberty are

Sweda pradurbhava: sweat glands will become larger & more active during puberty especially in Arm pits, Palms and soles.

Management: Chnadasava, Ushirasava, Arogyavardhini vati Application of kusha at palms and soles During rajaswala period agni capacity declines down and possibility of vitiation of agni and vata dosha.

Premenstrual endometrium is exposed to inflammation and hypoxia. stem cells in endometrium are involved at menses to enable free repair.

Aberrations in these processes can lead to menstrual disorders

Study of endometrial physiology helps pathogenesis of a number of disorders in other tissue sites.

Drinking alcohol increase risk of hormone receptor breast CA.

Abnormal life style Abnormal dense breast

High risk to develop breast CA

Related to age F/H H/O breast biopsy shows atypical cells increase risk tp CA Increase sugar intake breast cancer arises generally in epithelial cells.

Menorrhagia may cause carcinoma of endometrium lower menstrual life.

Less than 350 cycles - low risk of breast cancer 350-450 cycles - minimal risk of breast cancer More than 450 cycles - high risk of breast cancer.

YOUVANA PIDAKA:

Pores in skin produce more oil in face leads to acne formation. Accumulation of oil & dead skin cells leads to acne.

DRUGSFORYOUVANAPIDAKA:

Use of lepa like Kumkumadi Taila. Intake of drugs which help in purification of rakta like Haridra, Manjista, Chandanasava, sarivadhyasava.

STHOULYA:

Hormonal changes during Puberty cause fat deposition in breast, hips & thigh. Excessive food intake and minimal physical activity leads to overweight and obese.

- Management: Regular Physical exercise, intake of Navaka Guggulu, Triphala Guggulu.
- Satavari, Kumari, Aswagandha, Ashoka, Lodhra are useful for reproductive and physical health. Medhya Drvays are Brahmi, Jatamansi, Vacha and Snakhapushpi are beneficial for mental health. Some of the therapeutic procedures like Abhyanga, Nasya, Shirodhara, Matravasti and Yoga vasti are helpful in reproductive and psychological health.

CONCLUSION:

Ayurveda emphasizes the importance of women's health particularly during adolescence, a critical period of Physical, mental and emotional development. Some of the habits during this stage like adolescent & puberty such as eating patterns, conflict resolution have lasting impacts. Proper nutrition and care are essential to support future health & fertility. Neglecting health during puberty lead to long term health issues, Fertility problems. Ayurveda practices through diet, Lifestyle changes and panchakarma will help to correct the puberty related problems.

- Adolescence is a transition phase where psychological challenges such as depression, anxiety may arise if not properly managed. Ayurveda promotes overall well-being both Physically & psychologically during adolescence & Pubertal development.

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