

Woman Life's Phases: Navigating Menarche to Menopause

Kadambari S. Ghatpande^{1*}, Amol S. Deshmukh²

¹Department of Pharmaceutical Chemistry, Indrayani Vidya Mandir's Krishnarao Bhegade Institute of Pharmaceutical Education & Research, Talegaon Dabhade, Pune- 410507.

²Department of Pharmaceutics, Indrayani Vidya Mandir's Krishnarao Bhegade Institute of Pharmaceutical Education & Research, Talegaon Dabhade, Pune- 410507.

Corresponding Author:

Email: ghatpandekadambari4@gmail.com

ABSTRACT

Menarche is a milestone in a woman's life as it denotes the start of reproductive capacity. Aim of this review is to highlight the recent developments and the current knowledge in the field of neuroendocrinology of pubertal onset that influence menarcheal age. This article mentions the mechanism of Menopause, premenstrual syndrome, menopausal transition and the risk during the menstrual transition. At glance this review focuses on the problems related to menstruation and herbal drugs for its suitable treatment.

Keywords: Menarche, Menstrual transition, menstrual cycle, Menopause.

INTRODUCTION

Menarche is defined as the first menstrual period in a female adolescent. The Average Menarcheal age varies from 10 to 16 and onset of menarche is being 12.4 years [1]. The determinants of Menarcheal age are continuously being researched and found the various factors responsible as genetics, general health, Exercise, stress, socioeconomically conditions, nutritional status and family size [2,3].

Menarche signals the beginning of reproductive abilities and is closely associated with the ongoing development of secondary sexual characteristics [4,5]. As the journey passes the Menarcheal states continued with regular menstruations and lasts to menopause [6]. The word menopause is derived from Greek word 'Men' meaning month and pause means stop. The menopause is defined as cessation of periods [7,8].

Physiology of Menstruation: The normal menstrual cycle is lies between 28-32 days and may vary from 20 to 40 days. The following are the four phases on menstrual cycle:

- Menstruation
- Follicular
- Ovulation
- Luteal phase

Mechanism of Menopause

The ovulatory cycle starts with the recruitment of many follicles. One of these becomes the dominant one and is the source of ovulation. All of the other follicles undergo atresia, while many additional follicles find the same fate on a continuous basis, if the atresia continues which leads to menopause. It indicates that Atresia is the key which responsible for menopause.

The journey from menarche to menopause is too crucial and body passes through many physical, chemical and emotional changes. As teenagers enter into puberty, young teens undergo a great many physical changes, not only in size and shape, but in such things as the growth of pubic and underarm hair and increased body odor and breast development and having complex to adapt the physical changes during adolescence age. Along with physical changes some emotional changes as mood swing, short tempered, introvert, craving for privacy etc are occurs.[6,9-12]

Premenstrual Syndrome

It is the state with physical, emotional and behavioral changes with increased in severity and control or resolved with starts of menstruation. Some of the herbal drugs in various countries are used to treat PMS.[6]

Sr. No.	China	Iran	Korea	Japan	South Africa
1.	Bupleurum chinense DC	Salvia officinalis	Hypericum perforatum L	Angelica sinensis	Valeriana officinalis
2.	Cyperus rotundus L.	Hypericum perforatum L	Crocus sativus L. Crocus sativus L. Crocus sativus L. Crocus sativus L. Crocus sativus	Paeonia lactiflora Pall. Paeonia lactiflora Pall. Cinnamomum verum J. Poria cocos	---- -
3.	Angelica sinensis	Crocus sativus L.	Crocus sativus L. Vitex agnus-castus	Cinnamomum verum J Cinnamomum verum J Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., Alisma plantago-aquatica L., - -	- -
4.	Paeonia lactiflora Pal	Ginkgo biloba L	Cirsium japonicum	-	-
5.	-	-	Ginkgo biloba L	-	-

Menopausal Transition

It is the condition starts within menstrual cycle length and a monotropic rise in follicle-stimulating hormone (FSH); no associated increase in luteinizing hormone (LH) and ends with the final menstrual period.

There are three stages of menstrual transition

- Stage 1
- Stage 2
- Stage 3

The risks during menstrual transition:

- Depressed mood disorders
- Sleep disturbances
- Vasomotor symptom
- Venous thromboembolism,
- Coronary events,
- Stroke
- Breast cancer [10-13]

CONCLUSION

The journey of women life is crucial and filled with challenges everyday but besides of that it starts from menarche is first menstruation to cessation of menstrual cycle. During this period many physical, behavioral and emotional changes are occurring and may leads to risk that might be fatal. To overcome all these difficulties some herbal medication, healthy lifestyle, nutrition's plays an important role. To minimize risk, precautions has to be taken and routinely checkup and treatment can be worthy to save the life.

Acknowledgement

The authors are thankful to Management & Principal of Indrayani Vidya Mandir's Krishnarao Bhegade Institute of Pharmaceutical Education & Research, Talegaon Dabhade, Pune for providing necessary facilities and guidance for this article.

REFERENCES

- 1) Banjare L, Kumar AP and Naik ML. Boerhaavia diffusa from Traditional Use to Scientific Assessment- A Review. International Journal of Pharmaceutical & Biological Archives. 2012; 3(6):1346-1354.
- 2) Chang RJ, Plouffe Jr L, Schaffer K. Physiology of the menopause. In Comprehensive management of menopause 1994 (pp. 3-13). New York, NY: Springer New York.
- 3) Santoro N, Roeca C, Peters BA, Neal-Perry G. The menopause transition: signs, symptoms, and management options. The Journal of Clinical Endocrinology & Metabolism. 2021 Jan 1;106(1):1-5.
- 4) Soliman A, De Sanctis V, Elalaily R. Nutrition and pubertal development. Indian journal of endocrinology and metabolism. 2014 Nov 1;18(Suppl 1):S39-47.
- 5) Grotevant, Harold D. (1998). Adolescent Development in Family Contexts. In W. Damon (Series Editor) & N. Eisenberg (Volume Editor), Handbook of Child Psychology: Vol. 3: Social, Emotional and Personality Development (5th ed.). New York: John Wiley & Sons
- 6) Stuenkel CA, Davis SR, Gompel A, Lumsden MA, Murad MH, Pinkerton JV, Santen RJ. Treatment of symptoms of the menopause: an endocrine society clinical practice

-
- guideline. The Journal of Clinical Endocrinology & Metabolism. 2015 Nov 1;100(11):3975-4011.
- 7) Kark E. Age at menarche: genetic and environmental influences. The New England Journal of Medicine. 1969 Sep 1;281(11):622-3.
 - 8) Cumming DC. Menarche, menses, and menopause: a brief review. Cleveland Clinic Journal of Medicine. 1990 Mar 1;57(2):169-75.
 - 9) Jiao M, Liu X, Ren Y, Wang W, Mei Z. Comparison of herbal medicines used for women's menstruation diseases in different areas of the world. Frontiers in Pharmacology. 2022 Feb 4;12:751207.
 - 10) Practice Committee of the American Society for Reproductive Medicine. The menopausal transition. Fertility and Sterility. 2008 Nov 1;90(5):S61-5.
 - 11) Anjum AA, Tabassum K, Banu S. Impact of Herbal Medicine on Restoration of Post Menopausal Women's Health. Acta Sci Women's Heal. 2020;2:44-50.
 - 12) Karapanou O, Papadimitriou A. Determinants of menarche. Reproductive Biology and Endocrinology. 2010 Dec;8:1-8.
 - 13) Bae J, Park S, Kwon JW. Factors associated with menstrual cycle irregularity and menopause. BMC women's health. 2018 Dec;18:1-11.