

Impact of Age upon the Irregularities of Menstrual Cycle in Human Females

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Abstract: Present study was conducted in Quetta city of province Balochistan in order to determine the impact of age upon irregularities of menstrual cycle in human females. During the survey, a total of 100 females were selected randomly with age groups ranging from 14 to 57 years and were queried about their menstrual cycle normality and regularity with personal experiences. The obtained results revealed that those females which were between age group 14 to 24 years faced a little percentage of irregularity in menstrual cycles, whereas age group 36 to 57 years had showed higher rate of irregularities in their menstrual cycle. While in contrast, those females that were between 25 to 35 years old were showing greater regularity of their reproductive cycle. From the obtained results it was concluded that though there are several factors such as, malnutrition, stress, hormonal imbalance and many physical as well as chemical phenomenon in the biological system are also responsible for the abnormalities in menstrual cycle, however, according to the present investigation, irregularities in menstruation seem to be increasing with increasing in the age of female.

Key words: Menstrual Cycle • Abnormalities • Age • Human Female

INTRODUCTION

Menstruation cycle is a female's reproductive cycle that repeats after every 28 days. The process is wholly and solely dependent upon the female's sex hormones. The scenario begins at the onset of puberty when pituitary gland secretes FSH (Follicles stimulating hormone) that stimulate primary follicles to mature and develops only one follicle and releases it, while the rest degenerates by process called follicle atresia. If fertilization does not occur, then corpus luteum degenerates and progesterone level decreases, endometrium starts to shed off. As a result, blood and cells debris are released called menstruation that lasts normally from 5 to 7 days and the cycle completes. It can be disturbed by diet deficiencies and emotional stress. Complete stoppage is called Menopause that occurs at the age of 54 to 58 years as the female stops producing ova. The condition before it i.e., 46-56 years is called Peri-menopausal stage. The regularity and length of menstrual cycles imitate the alterations that are taking place due to steroid production in ovaries. Steroid hormone levels at pre-menopausal time may have a

significant influence on development of subsequent chronic types of diseases in women [1-5]. Therefore, present study was conducted to examine irregularity and length of menstrual cycles in human female belongs to the different age groups in Quetta city of Balochistan in relation to the increase in age of human females.

MATERIALS AND METHODS

Present survey was conducted during the period from March 2015 to August 2015 in the different regions of Quetta city of province Balochistan. In the present investigation, data of 100 randomly selected females was collected from the different regions of Quetta City that was generally divided into two major categories such as, (i) Working women's and (ii) Housewives. The working women's including,

- Helper's Public School Quetta,
- Government Girls High School Quetta.
- Degree Girls college Quetta.
- SardarBahadur Khan Women's University Quetta.

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While housewives were also selected randomly from the following regions of Quetta including;

- Abdullah town, Quetta
- Satellite town, Quetta.

The ages of these females were ranged from 14 to 57 years.

A Questionnaire was given to the randomly to the selected females that had questions based upon relevant general information i.e.,

- Age,
- Occupation,
- Diet,
- Marital status,
- And about their experiences of having previous cycles including pain, mood swings, length of cycle flow of blood etc.,
- Effects on ending of a cycle such as, mood disorder, stress, weight gain or weight loss and irregular bleeding (If any).

The total examined females in the present study were then divided into following groups according to their ages i.e.,

- Beginners (Between 14 to 24 years old),
- Intermediate stage-I (Between 25 to 35years old),
- Intermediate stage-II (Between 36 to 46 years old),
- Peri-menstrual stage (Between 47 to 57 years old).

RESULTS AND DISCUSSION

In the present investigation, data recorded for the following groups including (i) Beginners (between 14 to 24 years old), (ii) Intermediate stage-I (Between 25 to 35years old), (iii) Intermediate stage-II (Between 36 to 46 years old), (iv) Peri-menstrual stage (Between 47 to 57 years old) shows that females of first group (14-24 years) faces a little percentage of irregular cycles because of the fact that sex hormones at the time of menarche shows imbalance by having Acne, weight gain or loss, hair fall etc. The second group (25-35 years) shows greater regularity than irregularity of their reproductive cycle showed that three out of five females have malnourished diet according to the personal contact with them. The third group (36-46 years) showed higher rate of irregularity as the peri-menstrual stage lies nearby or has been started. The fourth group (47-57 years) shows higher irregularities than regularities as menopause is quiet near as shown in Figure 1.

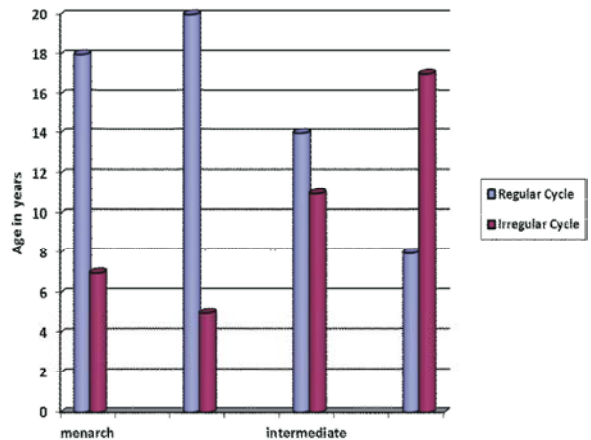


Fig. 1: Shows the regular and irregular menstrual cycle in different age groups of female

According to the present survey, the information's obtained from the selected females revealed that these female may face irregularities in menstrual cycle due to stress, hypertension, malnutrition and several feminine diseases but among all these factors, present data recorded on female's menstrual cycle irregularities revealed that ascending age is the major cause, because as the age increases, the body gets least receptive to the secretions of her sex hormones. Our result was in accordance to Castillo-Martinez *et al.* [6] who reported the high percentages of asymmetrical menstrual cycles, that is 13.7% between women of Samoan with ages ranged from 18 to 39 years. While according to Astrup [7] and Munster *et al.* [8] all those neither women that were at reproductive age and also were neither pregnant, nor lactating were thought to menstruate frequently, even though variation may occurs in the length of menstrual cycle. Thus, our study was in concordance with Friedenreich and Orenstein [9].

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