International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622

www.gynaecologyjournal.com
2021; 5(2): 125-126
Received: 03-01-2021
Accepted: 12-02-2021

Dr. Tejashree NR
Post Graduate, Department of Obstetrics and Gynaecology, University Sri Devaraj URS Medical College, Karnataka, India

Dr. Gomathy
3rd Year Post Graduate, Department of Obstetrics and Gynaecology, University. Sri Devaraj URS Medical College. Karnataka, India

Corresponding Author:
Dr. Tejashree NR
Post Graduate, Department. Obstetrics and Gynaecology, University. Sri Devaraj URS Medical College. Karnataka, India

Correlation of vaginal PH and serum FSH in menopause

Dr. Tejashree NR and Dr. Gomathy

DOI: https://doi.org/10.33545/gynae.2021.v5.i2c.875

Abstract
Introduction: Menopause is the physiological cessation of menstruation. It begins twelve months after the last menstruation and it is demonstrated by elevated levels of follicle-stimulating hormone (FSH).
Materials and Methods: It's a cross-sectional study which was done in RLJH from June 2019 to November 2019.A total of 80 women in the age group of 40 - 60 years who had their last menstrual period 1or more than one year back and presented with postmenopausal symptoms were included in the study.
Results: The sample of present study comprised of women who had menopausal symptoms (N= 80). On the basis of results from this study, the mean age of patient was 44.4 (ranging from 41 to 60). All the women in this study had amenorrehea ranging from 1 to 15 years. The mean vaginal Ph for women was 5.7 (ranging from 3 to 6.5). The mean FSH levels was 66.65 (ranging from 14 miu/ml to 143miu/ml). According to this study, 68 patients were found to be menopausal on the basis of two criteria. FSH levels greater than 20Miu/ml and vaginal Ph being more than >/= 4.5. In this study, considering FSH levels >20Miu /ml and vaginal Ph >4.5, with the sensitivity of 97.14%, 85% patients were found to be menopausal.
Conclusion: In our hospital, we use invasive and expensive test for prediction of menopause, that is serum FSH levels. We have done this study to conclude that Vaginal Ph is a simple, accurate, cost effective and noninvasive test. This suggests it as an alternative tool for serum FSH in diagnosing menopause, so that many people will be identified with perimenopausal symptoms and treated.

Keywords: Vaginal PH, FSH, menopause

Introduction
Menopause is the physiological cessation of menstruation. It begins twelve months after the last menstruation and it is demonstrated by elevated levels of follicle-stimulating hormone (FSH) [1]. Average age of menopause has been 51.4±3.8 yrs. The average age of menopause in Indian women is 46.8 years[3].Menopause is diagnosed by age, cessation of menstruation for more than one year and presence of symptoms [6].
It has been known that without vaginal infections, vaginal pH is ≤4.5 during the reproductive years and >4.5 before menarche and after menopause [3]. In response to estrogen, vaginal epithelial cells proliferate, their glycogen content is increased and subsequently, lactobacillus produces lactic acid from glycogen and causes an acidic pH which maintains vaginal health [1]. In the absence of vaginitis, an elevated vaginal pH may reflect low circulating estrogen levels (estradiol <40 pg/ml) or inadequate response of atrophic vaginal epithelium to estrogen therapy [3]. Menopause can be recognized by elevated serum FSH level, before the onset of symptoms.

Objective of the study
- To determine whether vaginal Ph can be used in place of FSH as an initial screening to determine menopause.
- To observe the association of serum FSH with total cholesterol and triglycerides levels in postmenopausal women.

Materials and Methodology
It's a cross-sectional study which was done in RLJH from June 2019 to November 2019. A total of 80 women in the age group of 40 - 60 years who had their last menstrual period 1or more than one year back and presented with postmenopausal symptoms were included in the study. A detailed menstrual, obstetric, medical and family history, gynecological symptoms including history regarding postmenopausal symptoms were obtained.

Following this, the two quantitative variants ie serum FSH level and vaginal pH were measured. Serum FSH level were measured using the Radio immunoassay. Vaginal pH was measured using pH strip. During vaginal examinations, after the insertion of a sterile vaginal speculum, a 2 cm of the strip is applied directly to the lateral vaginal wall at the outer third of the vagina until it became wet. Color changes of the strip were immediately compared with the colorimetric scale and the measurements are recorded. Routine blood investigations and Lipid profile was collected and documented. Osteoporosis was assessed using Singhs index, obtained from pelvic X rays. Data was collected from the patients files and entered into the proforma. Data will be analysed to see the convergence of the two methods for the diagnosis of menopause.

Conclusion

In our hospital, we use invasive and expensive test for prediction of menopause, that is serum FSH levels.

We have done this study to conclude that Vaginal Ph is a simple, accurate, cost effective and noninvasive test.

This suggests it as an alternative tool for serum FSH in diagnosing menopause, so that many people will be identified with perimenopausal symptoms and treated.

References

1. Fatemeh Vahidroodsari, Seddigheh Ayati, Zohreh Yousefi, Shohreh. Comparing Serum Follicle-Stimulating Hormone (FSH) Level with Vaginal PH in Women with Menopausal Symptoms. Oman Medical Journal 2014;25:13-16.
2. Roy S, Caillouette JC, Roy T. Vaginal Ph is similar to FSH in menopause diagnosis. ACOG 2010;190:1272-7.
3. Subrat Panda, Ananya Das, Ahanthem Santa Singh, Star Pala. Vaginal pH: A marker for menopause. Journal of Mid life health 2014;5:13-17.
4. Sanam Moradan, Raheb Ghorbani, Zahra. Can vaginal Ph predict menopause. Journal of Saudi 2010;31(3):253-256.
5. Anburajan M, Rethinasabathi C *et al*. Age related proximal femur bone mineral loss in south Indian women. Physicians India 2011;49:442-445.
6. Jie Wang, Wenwen Zhang *et al*. Follicle – stimulating hormone increases the risk of postmenopausal osteoporosis by stimulating osteoclast differentitiation. Journal pone 2015;30:556-559.