

Premature ovarian failure diagnosis and management

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Introduction: Premature ovarian failure (POF) is defined as menopausal levels of follicle stimulating hormone (FSH \geq 40 IU/l) associated with more than 4 months of secondary amenorrhea occurring before the age of 40. It affects approximately 1% of women and the underlying an etiology remains very complex and heterogeneous. Recently Welt suggested changing the term POF to POI, which stands for premature ovarian insufficiency, because this better reflects the longitudinal progression towards the final menstrual cycle.

Objective: The objective of this study was to investigate different etiologic mechanisms of premature ovarian failure.

Material & Methods: A retrospective study of 30 cases of early menopause reported in our service for period of 10 years from January 2000 to December 2009. We will center this work to draw up an epidemiologic profile of our population, to specify the various circumstances of discovery, to analyze the various mechanisms etiopathologic and finally to discuss the therapeutic possibilities.

Results: The incidence of premature ovarian failure is around 1 to 3%. This pathology occurs in young women who often wish to become pregnant. Two mechanisms could be involved: Initial follicle depletion and follicle dysfunction; however in some cases mixed mechanisms are involved initially. Our study includes 30 patients. Genetic anomalies were found in 3 cases (10%). Anti-ovarian antibodies were found in 18 cases (60%). Ovarian biopsy done in 20 patients confirms immunological mechanism of ovarian failure in 16 cases (70%) with autoimmune ovariitis. In 9 cases idiopathic ovarian failure was observed.

Discussion: The POF etiology in women with normal karyotype remains poorly understood. However, more and more genes involved in the normal follicular and ovarian development are becoming known, which are also likely to be involved in this disease, based on the data obtained from animal models. In such context, the first study presented herein was conducted to evaluate whether the ovarian biopsy, when compared with data provided by pelvic ultrasound (US), could be a reliable tool to individualize patients with an ovarian phenotype suggestive of a particular gene mutation, therefore, suggesting the usefulness of laparoscopy and ovarian histology in orientating the search for the possible genetic etiologies of the POF syndrome. In our experience, when women had no follicle at US, histological examination did not detect follicles in most of our patients. At the contrary, only 56% patients with normal size ovaries with the presence of follicles suggested at US, displayed follicles when histological examination of an ovarian biopsy was performed. Consequently, it can be assumed that, US is not predictive of the presence of follicular structures within the ovary.

Conclusion: The proportion of idiopathic premature ovarian failure tends to decrease owing to the better recognition of genetic and immunological anomalies. Finally the use of the ovarian biopsy still remains interesting in our hands to help us to better understand the process of ovarian dysfunction and is mandatory in patients for whom anomalies of genes involved either in follicular growth or maturation are found.

Biography

ACHOUR Radhouane is associate professor at faculty of medicine of Tunis-Tunisia; He has published many basic and clinical articles in relation to gynecology and obstetrics. , his research interests include Rare Diseases in gynecology and prenatal diagnosis. He serves as associate professor, Emergency Department of Gynecology and Obstetrics in maternity and neonatology center Tunis ; Faculty of Medicine of Tunis- El Manar University of Tunis-Tunisia. He also serves as member of the editorial team for: Asian Pacific Journal of Reproduction, the Global Journal of Rare Diseases, Journal of Neonatal Biology, Current pediatric research, Obstetrics and Gynecology: Open access, Pediatrics and Health Research and Member of the Science Advisory Board.

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