

Review

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I present this review in my capacity as an external member of the scientific jury, determined by Order № P-109-153 of the Rector of Medical university-Varna, Prof. Dr. Paraskev Stoyanov"- Prof. Dr. Valentin Ignatov.

Subject: The dissertation of Dr. Pavel Petrov Dobrev on "Genitourinary syndrome of menopause in women after hormonal, surgical and radiation castration " with supervisor Dr. Yavor Kornovski, MD for awarding the educational and scientific degree "Doctor" in the field of higher education "7 Health and Sports", scientific field "7.1. Medicine", scientific specialty "Obstetrics and gynecology".

The review was prepared on the basis of the presented Dissertation and Abstract. They are properly formed and meet the requirements for the structure of scientific work, according to the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at Medical university - Sofia.

Data for the doctoral student: Dr. Pavel Petrov Dobrev was born on 23rd June, 1986. He graduated from "Vasil Levski" high school for foreign languages in Burgas and subsequently graduated in medicine at Medical university-Varna - 2011. In 2016 he acquired the specialty "Obstetrics and Gynecology".

His professional career continues in the field of operative gynecology and minimally invasive surgery in the town of Pleven and the town of Burgas.

In 2021 he was enrolled as a doctoral student in an independent form at Medical university "Prof. Dr. Paraskev Stoyanov "-Varna.

He is a member of the Scientific Society of Obstetrics and Gynecology and the Bulgarian Medical Union. He uses written and spoken English and Russian.

Relevance of the topic: Genitourinary syndrome is a relatively new term in the field of general gynecology. The very inclusion of menopausal symptoms in a new structural group shows the importance and multifaceted nature of the problem. On the one hand there are the difficulties in the diagnosis due to the multifactorial nature of the problem, and on the other hand, the influence of the complaints. The idea of the doctoral student to draw attention to the causes of the symptoms and the emphasis on the early prevention of complaints is commendable. Studying the influence of these factors would allow the right approach and improve the quality of life.

Dissertation structure:

The dissertation is written in literary Bulgarian and is presented on 122 standard computer pages. It is illustrated with 16 tables and 14 figures. The bibliography includes 167 titles, only 2 of them in Bulgarian, the remaining 14 are in Russian and 151 in Latin. This shows the depth of the analysis and the timeliness of the problem. The dissertation includes: literature review - 47 pages, purpose and tasks - 2 pages, clinical material and methods - 30 pages, results and discussion - 21 pages, conclusions - 1 page, contributions - 2 pages, bibliography - 15p.

The literature review is extremely detailed, presented on 47 pages and reflects in-depth knowledge in the field of anatomy and physiology of the female reproductive system. At the same time, the topicality of the problem is presented worldwide, citing 165 sources, mostly from foreign authors. Addressing the problem and proposing a new classification would allow us to change our approach to this serious and often underestimated syndrome. The literature review examines the main points of discussion, it is comprehensive and fully sufficient to form the main directions of the study.

The goal is: To study the frequency and various manifestations of the syndrome of genitourinary atrophy after surgical and drug (hormonal and chemotherapy) castration. The goal is clearly and precisely stated. To achieve it, 8 tasks have been set.

Material and methods: A prospective clinical and epidemiological study was conducted, covering 67 patients. The studied clinical contingent has an average age of 40.27 ± 3.90 years in the range of 30-45 years. The patients were divided into two groups: 35 (52.2%) underwent surgical castration and 32 (47.8%) underwent drug therapy (chemotherapy and / or hormone therapy).

The participants in the study were selected with the help of pre-developed inclusion and exclusion criteria, which are strictly observed. The inclusion and exclusion criteria are clearly and precisely defined. The research methods and methodology are carefully selected.

Various research methods were used: clinical, apparatus, paraclinical. The main assessment was made on the basis of vaginal pH; vaginal content; amount of lactobacilli. A questionnaire has been developed to assess the frequency of subjective symptoms related to the vaginal component of genitourinary syndrome in menopause (GSM) - dyspareunia, vaginal dryness and pruritus vulvae (dryness of the vulva) after both types of castration (surgical and medical). Urinary symptoms are included, which are often underestimated and misinterpreted by gynecologists.

Statistical processing of the results: It is performed precisely and methodically. Well-established and modern methods for mathematical analysis of the processed results are used.

The results of the study are presented consistently and systematically, with a good illustration of tables and figures. In interpreting one's own results, each section is followed by a discussion and relevant conclusions.

Frequency distribution of all patients included in the study according to: vaginal pH; vaginal content; amount of lactobacilli subjective vulvovaginal symptoms is as follows:

Patients with surgical castration have a higher percentage of missing lactobacilli, while those with drug castration - a normal and reduced amount

Most (65.7%) participants in the study were with vaginal dryness, followed by those with dyspareunia (50.7%). The least are patients with no such symptoms - 19.4%, and those

with Pruritusvulvae completely absent. Patients with surgical castration have a higher percentage of missing lactobacilli, while those with drug castration - a normal and reduced amount.

Leading in the subjective symptoms related to the urinary component of the genitourinary syndrome (GSM) in menopause is the nocturia with 56.7%, followed by mixed incontinence with 23.9%. Last is the imperative incontinence by 4.5% (Fig. 8)

A very important result is the prognostic significance of the factors - age, type of castration, cancer, for the occurrence of: dyspareunia, vaginal dryness, pruritus vulvae, vaginal pH, vaginal content and the number of lactobacilli.

The conclusions in the dissertation are 9 in number, and they are accurately and clearly presented. They are based on the results of the survey and are supported by data from statistical processing. The obtained results and conclusions can be used to change the behavior and treatment of genitourinary syndrome in order to reduce the frequency of subjective complaints of patients and especially improve the quality of life.

The contributions are properly formulated, with scientific and practical value. They reflect the achievements of the doctoral student in the developed topic. I find the analysis of the predictive significance of the factors for the genitourinary syndrome and the possibilities for prevention to be especially important.

The abstract is prepared in accordance with the requirements and accurately reflects the parts of the dissertation.

Publications and participation in congresses: The doctoral student has presented 2 publications as a first author and participation in a project.

CONCLUSION:

The dissertation and Abstract presented to me for an opinion meets all the requirements of the Regulations for scientific degrees. It presents scientific results that are a step forward in understanding the problem - "Genitourinary Syndrome"

Based on the above, I give a positive opinion on the dissertation on "Genitourinary syndrome of menopause in women after hormonal, surgical and radiation castration" for the award of the educational and scientific degree "DOCTOR" to Dr. Pavel Petrov Dobrev.

23.05.2022 The review was prepared by: Assoc. Prof. Dr. Vesela Karamisheva, MD /

The city of Sofia