



REVIEW

by Prof. Emil Georgiev Kovachev, MD, DMSc

Head of the Department of Obstetrics and Gynecology at Medical University -
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regarding

a competition for the academic position of "Associate Professor" in professional
field 7.1. Medicine, specialty Obstetrics and Gynecology, announced in the State
Gazette No. 101/ 29.11.2024, for the needs of the Medical University "Prof. Dr.
Paraskev Stoyanov" - Varna

of Dr. Simona Anzhel Georgieva, MD

EVALUATION OF CONTRIBUTIONS

Personal contributions can be grouped into the following areas:

I. Contributions related to the dissertation on the topic: "Ovarian response, embryo quality and ectopic pregnancy"

In her dissertation, Dr. Georgieva has developed a problem that is particularly relevant
in Bulgaria.

The dissertation examines and analyzes a contemporary problem in her work. For our
country, the first large-scale study of infertility was conducted in 1980/1982 and 7.55%
sterility was established. In 2005, the report on the study of the frequency of causes of
infertility (BAS) in the country found that 15% of women of fertile age have difficulties
related to realizing the desire for a child.

The effect of the infertility diagnosis on the probability of ectopic pregnancy, the
influence of the factor number of transferred embryos on the probability of ectopic
pregnancy, the influence of embryo quality on the probability of ectopic pregnancy,
the influence of the transfer of fresh and thawed embryos on the frequency of ectopic



pregnancy, the influence of the factor age on the frequency of ectopic pregnancies, the relationship between ovarian response and the rate of ectopic pregnancy, the influence of the day of embryo transfer and the probability of ectopic pregnancy were analyzed. The significance of the listed factors was checked in a multivariate regression model.

The total rate of ectopic pregnancy in the present study is 9% and it is visualized that the tubal factor increases the risk of EB after IVF.

Hydrosalpinx is a major cause of tubal factor infertility and is associated with a negative impact on the outcome of IVF treatment. The present study confirms that the transfer of more than one embryo increases the chance of ectopic pregnancy.

The transfer of embryos with poor morphology is also associated with an increased likelihood of spontaneous abortion, as well as ectopic pregnancy.

All factors of ART have been analyzed in depth and compared in the intrauterine and ectopic pregnancy groups, with logistic regression highlighting the significance of the significant factors.

For the first time in our country, the influence of the ovarian response on the probability of ectopic pregnancy has been studied, relative to the number of retrieved eggs and the dose of gonadotropic hormones used.

The importance of the woman's age as a factor influencing the success rate of ART has been emphasized, and a formula for predicting the probability of ectopic pregnancy has been derived.

The analysis of the influence of embryo quality on the risk of ectopic pregnancy is important, as well as the comparative analysis of embryos with poor and good quality in terms of the outcome of IVF.

II. Contributions in other thematic areas not related to the dissertation work:

The main topic in the scientific works of Dr. Simona Anzhel Georgieva are assisted reproductive technologies, possible complications and their association with high-risk pregnancy with possibilities for prenatal diagnosis and recommendations for timely



therapy. The ovarian response is studied as a main determinant of treatment success and the possibilities for its influence through individualization of treatment protocols.

Dr. Georgieva has presented and published in our and foreign forums developments in the field of prenatal diagnosis, as well as other rare clinical cases in the field of Obstetrics and Gynecology.

III. Contributions related to a monographic work on the topic: "Follow-up of pregnancies after assisted reproductive technologies - risks, complications and recommendations for prevention"

The presented monographic work "Follow-up of pregnancies after ART - risks, complications and recommendations for prevention" by Dr. Simona Georgieva, MD, examines problems of important medical and social importance, which, against the background of unfavorable demographic indicators, especially in Bulgaria, also acquire general human importance.

In recent years, it has been established that pregnancies after ART lead to an increased risk of obstetric complications, such as pregnancy-induced hypertension, placental anomalies, congenital anomalies, gestational diabetes, as well as some neonatal complications, such as prematurity, low birth weight and others.

Some of the modern trends in ART are the application of low doses of gonadotropic hormones in stimulation protocols, as well as the implementation of single embryo transfer and cryopreservation of eggs and embryos. These measures have led to a reduction in the incidence of some complications associated with multiple pregnancy, heterotopic pregnancy and hyperstimulation syndrome. This scientific work systematically describes protocols for preparation for FET, the place of GnRH agonists in HRT before FET, patients with PCOS, endocrine monitoring during FET, FET on a natural cycle, as well as the described deviations during pregnancy. Of particular practical value is the proposed sample protocol for monitoring pregnancies after IVF in order to minimize the risk of complications and improve perinatal outcomes, with 10 specific guidelines being formulated. A large part of pregnancies after ART continue their monitoring outside specialized IVF clinics, which requires knowledge among other AG specialists of some aspects of treatment methods and complications during pregnancy after IVF. Modern and adequate management of the GK by an



obstetrician-gynecologist and a health care specialist should be aware of these trends related to pregnancy and prevent some possible complications.

The author has significant scientific and practical experience in the field of ART, as well as in modern management of the reproductive system and specific obstetric and gynecological activities in hospital settings. This monograph is particularly relevant for Bulgaria and fills a significant gap in the specialized literature on ART and subsequent pregnancy in recent years.

RESEARCH ACTIVITY

Dr. Georgieva presents for the competition a dissertation on the topic: **"Ovarian response, embryo quality and ectopic pregnancy"**, a monograph on the topic **"Follow-up of pregnancies after assisted reproductive technologies - risks, complications and recommendations for prevention"**, as well as **25** full-text publications in domestic and foreign scientific journals that meet the regulatory requirements.

Participation in courses

The candidate's professional interests are in the field of reproductive medicine, assisted reproductive technologies, prenatal medicine and endoscopic surgery, for which she has the relevant certificates.

1. 2017 – Course in Ultrasound Diagnostics in Obstetrics and Gynecology Practice”, SBAGAL Varna, Medical University of Varna, Certificate No. 106-2392
2. 2017 – Theoretical and practical training in the field of fetal morphology under the project “Improved quality of prenatal diagnostics and neonatal care” SBALAG Sofia,
3. Certificate No. 70 of 20.10.2017
4. 2019 - Certified clinical embryologist at the European Society of Human Reproduction and Embryology (ESHRE)
5. 2022 – Diagnostic laparoscopy in gynecology – Level I – Certificate No. 109/02/12/2022
6. 2023 – Diagnostic and office hysteroscopy – Level I – Certificate No. 28/24/02/2022



7. FMF Certificate of competence and license on "11-13 weeks scan", 17.12.21
8. FMF Certificate of competence and license on "Preeclampsia screening", 17.12.21
9. FMF Certificate of competence and license on "Cervical assessment", 20.12.21

Brief biographical data

Dr. Georgieva graduated with honors in medicine in 2016 at the Medical University - Varna and in the same year was enrolled as a specialist in obstetrics and gynecology with a training base - SBAGAL Varna. Since 2017, she has been an assistant at the Department of Obstetrics and Gynecology of the Medical University - Varna and won a competition for full-time doctoral studies. Dr. Georgieva has attended a number of specialized courses in the field of ultrasound and Doppler diagnostics, and in 2019 she successfully passed an exam at the European Society of Human Reproduction and Embryology (ESHRE) with a certificate for additional qualification "Clinical Embryologist". In 2021, she obtained the scientific degree "Doctor" with a dissertation on the topic "Ovarian response, embryo quality and ectopic pregnancy". Dr. Georgieva is a member of the Bulgarian Association of Sterility and Reproductive Health (BASRH), the Bulgarian Association of Ultrasound in Obstetrics and Gynecology, the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG), the European Society of Human Reproduction and Embryology (ESHRE) and actively participates in Bulgarian and foreign scientific forums.

Dr. Georgieva's scientific and practical interests are in the field of reproductive medicine, assisted reproductive technologies, prenatal medicine and endoscopic surgery in gynecology. Since 2022. holds the academic position of "Chief Assistant" at the Department of Obstetrics and gynecology.

Conclusion

The scientific output presented by Dr. Georgieva meets generally accepted standards. Based on the scientometric criteria and teaching and learning activities, I believe that Dr. Simona Georgieva, MD meets all the requirements for acquiring the academic position of "Associate Professor".



I would like to recommend to the esteemed members of the Scientific Jury to vote positively for awarding the academic position of "Associate Professor" in the scientific specialty "Obstetrics and Gynecology" to Dr. Simona Anzhel Georgieva, according to the Regulations for the Development of the Academic Staff at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

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Prepared by:

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