



REVIEW

By Prof. Dr. Emil Georgiev Kovachev, MD PhD

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Regarding the PhD thesis for awarding the scientific-educational degree "Doctor", scientific specialty Obstetrics and Gynecology (03.01.45), Department of Obstetrics and Gynecology, Medical University - Varna.

PhD thesis's topic: "Robotic myomectomy. A comparative analysis of clinical outcomes compared with abdominal and laparoscopic approaches."

Author of the PhD thesis - Dr. Radko Emanuilov Tocev

Scientific supervisor: Prof. Dr. Ivan Atanasov Kostov, MD PhD.

The PhD thesis submitted for defense contains a total of 157 standard pages and is illustrated with 60 tables and 35 graphs.

The bibliographic reference contains 357 literary sources, of which 2 are in Bulgarian and 355 are in English.

Relevance of the problem

Dr. Tocev touches upon a modern problem of important medical and social importance in his PhD thesis. Uterine fibroids are the most common benign tumor in gynecological practice. Nowadays, the share of diagnostic-operative interventions,



which are carried out using modern endoscopic techniques, is constantly increasing, especially for women of reproductive age, with the aim of preserving fertility.

A review of the literature review clearly shows that the dissertation student has thoroughly studied a variety of contemporary literary sources. The review has a high educational value. An in-depth description of the main surgical techniques in myomectomy, as well as the latest advances in robotic surgery, is made.

The aim of the study is to analyze the perioperative indicators of robot-assisted myomectomy, to evaluate its clinical significance for the treatment of uterine fibroids and to determine its place in modern gynecological surgery.

The 6 tasks of the dissertation work are clearly formulated:

1. To study the indicators of age, BMI, indication for surgery, number, size and type of fibroids.
2. To analyze the intra- and postoperative indicators - operative time, hospital stay, postoperative complications in robot-assisted myomectomy.
3. To conduct a comparative analysis of the perioperative indicators - operative time, hospital stay, BMI, size, number and localization of fibroids in robotic, laparoscopic and abdominal myomectomy.
4. To evaluate the factors that affect the duration of robot-assisted myomectomy.
5. To make an economic analysis of the costs of the three types of myomectomies.
6. To determine the place of robotic myomectomy in the modern treatment of fibroid disease.

Material and methods



The study was carried out in Doverie hospital Sofia, Dr. Shterev Medical Complex - Sofia and Maichin Dom hospital - Sofia in the period from 2016 up to 2020. The study is retrospective in nature and includes 300 patients, distributed as follows:

- 100 robot-assisted myomectomies
- 100 laparomyomectomies
- 100 laparoscopic myomectomies

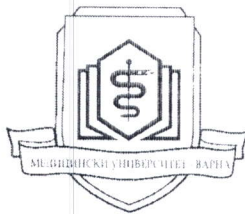
Dr. Tocev performed the analyzes upon the latter criteria:

- Age of the patient
- Parity
- Size of the uterus
- Number, size and location of fibroids
- Blood loss
- Intraoperative complications

To process the data, the dissertation student used a variety of statistical methods.

Own results and discussion

Based on the research results, the PhD thesis proves the effectiveness of robot-assisted myomectomy in terms of low frequency of intra- and postoperative complications and short hospital stay. In terms of costs, this surgical method is found to be the most expensive compared to the others, but it is recommended for patients



with high BMI, cervical fibroids, and intramural fibroid nodules between 7 and 10 cm in size.

Evaluation of conclusions and contributions

Dr. Tocev formulated 7 conclusions and 7 contributions, dividing his contributions into two categories: contributions of an original nature and contributions of a confirmatory nature. It is especially important to accentuate contributions with an original, namely:

1. For the first time in our country, a study has been conducted that compares indicators in different operational approaches of myomectomy - abdominal, laparoscopic and robot-assisted myomectomy. Perioperative and postoperative outcomes are covered.
2. An original recommendation was made for the operative approach regarding the size of the fibroid nodule.
3. The operative approach regarding the location of the fibroid was analyzed.
4. For the first time, a recommendation for the operative approach is reached in terms of the number of fibroids present.
5. For the first time, the relationship between high BMI and perioperative complications is investigated with a recommendation for an approach.

Critical remarks

Dr. Tocev has complied his work with previously made critical remarks.



Teaching and learning activity

Dr. Radko Emanuilov Tocev was born on August 15, 1983. He graduated in medicine at the Medical University in Sofia in 2008. He specialized in "Obstetrics and Gynecology" at the Department of Obstetrics and Gynecology -- Sofia Medical University. He obtained his specialty in 2015. Over the years, he held the position of doctor in "St. Sofia" hospital- Sofia, "Sheynovo" hospital- Sofia, "Doverie" hospital- Sofia and "Maichin dom" hospital - Sofia. Dr. Tocev has been enrolled for a free doctoral program since December 2020 at MU-Varna, Department of Obstetrics and Gynecology. He has conducted specialized courses in laparoscopy, gynecological oncology and robotic surgery, urogynecology and holds a certificate for working with the Da Vinci robotic system.

Conclusion

The presented PhD thesis of Dr. Tocev "Robotic myomectomy. A comparative analysis of clinical results compared with abdominal and laparoscopic approaches." is up-to-date and meets the generally accepted criteria. I would like to take the opportunity of recommending to the respected members of the Scientific Jury to vote positively for awarding the scientific and educational degree "Doctor" in the scientific specialty "Obstetrics and Gynecology" to Dr. Radko Tocev, according to the Regulations for the Development of the Academic Staff at the Medical University - Varna .

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Prof. Dr. E. Kovachev, MD PhD