

OPINION

From
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About
Defense of the dissertation of
Dr. Martin Nikolaev Moynov

On the topic:
"Neuronavigated fine-needle biopsy in cranial neurosurgery"

Presented for the award of
Educational and scientific degree "Doctor"
In the scientific specialty "Neurosurgery"
Professional field 7.1. Medicine,
Area of higher education 7. Health and sports.

Relevance of the developed dissertation

The dissertation presented to me for review is a theoretical and research work examining the possibilities of applying neuronavigated needle biopsy for the purposes of cranial neurosurgery.

The relevance of the work is determined by the object of study - modern imaging-based navigation system used in neurosurgery and biopsy cranial set for minimally invasive acquisition of biopsy material for histological verification of image-diagnosed intraaxial lesions.

The topicality of the developed work is also motivated by in-depth literary research, critical analysis of the current state of the problems and competent and accurate formulation of the goals set before the work.

I believe that the author of the dissertation is well aware of the state of the problems in the scientific field related to the object of study.

Structure of the dissertation:

The dissertation on "Neuronavigated fine-needle biopsy in cranial neurosurgery" has a volume of 173 standard typewritten pages. Its structure fully meets all accepted requirements. It consists of Introduction and Literary Review - 38 pages, Purpose and tasks - 1 page, Materials and methods - 26 pages, Results - 57 pages, Discussion - 26 pages, Conclusion and conclusions - 1 page each, Contributions - 1 page, Bibliography - 15 pages. The presented material is illustrated with 135 figures and 71 tables. The author used 260 literary sources.

Most significant contributions:

Contributions that I believe are present in the dissertation include:

Formulation and introduction in the routine neurosurgical practice of a surgical protocol for the application of neuronavigated needle biopsy, training of the medical neurosurgical team of the Clinic of Neurosurgery of University Hospital - "St. Marina", on the nature, objectives and use of a neuronavigated needle biopsy protocol in patients with intracranial lesions; indications and contraindications for the use of neuronavigated needle biopsy in patients with intracranial lesions is synthesized; the formulated protocol for work with neuronavigated needle biopsy in surgical interventions of patients with supratentorial intracranial lesions is introduced and described in its routine use; an evaluation and retrospective analysis of the effectiveness of neuronavigated needle biopsy is performed.

Critical remarks:

In general, I have no critical remarks on the presented material, but I only recommend the results to be published in renowned foreign publications with impact factor, which will give them a well-deserved place in the world theory and practice of minimally invasive navigated histological verification.

Reasons and conclusions:

The four scientific works of the dissertation, published on the topic, demonstrate that the author has a major commitment to the overall contributions of this dissertation.

The abstract is compliant, according to the requirements and reflects in detail the main provisions in the overall development and the scientific contribution of the dissertation.

The scientific papers, which reflect the results of the dissertation, have been published in journals in Bulgarian and English, which I believe have been published in wide forums and are well illustrated.

In connection with possible recommendations for future use of scientific and applied scientific contributions, I believe that the main and significant part of the results achieved in the dissertation are already focused on the practice of minimally invasive extraction of biopsy material in cranial neurosurgery and do not need additional recommendations.

The presented review, research and the results obtained in the dissertation in general, present Dr. Moynov as a surgeon with continually increasing theoretical and technological experience in the field of scientific knowledge related to image-based navigation intraoperative systems.

The paper solves problems related to the application of modern innovative minimally invasive surgical techniques, their optimization and effectiveness, aimed directly at a practical application. This includes the formulation and implementation of a protocol for working with neuronavigated needle biopsy, which, in my opinion, is of practical interest.

All that has been said so far allows me to draw the following conclusion:

The dissertation "Neuronavigated needle biopsy in cranial neurosurgery" presented to me for review by Dr. Martin Nikolaev Moynov in Professional Field 7.1. Medicine, Field of higher education 7. Healthcare and sports, in the scientific specialty Neurosurgery, fully meets the requirements of the Academic Staff Development Act in the Republic of Bulgaria, and the rules for its application. I propose that the distinguished jury award him the educational and scientific degree of "doctor".

07.06.2022
Varna

Assoc. Prof. Dr. Radoslav Yosifov Georgiev MD

A handwritten signature in blue ink is written over a horizontal dotted line. The signature is stylized and appears to be the name of the signatory, Assoc. Prof. Dr. Radoslav Yosifov Georgiev MD.