

OPINION

From: Prof. Dr. Hristo Tsekov Tsekov, MD, Neurosurgery Clinic at "Acibadem City Clinic UMBAL Tokuda" EAD - Sofia

Regarding: the holding of a competition for the occupation of the academic position "Associate Professor" / area of higher education 7. Health care and sports, professional direction 7.1 Medicine - scientific specialty Anesthesiology and Reanimation for the needs of the Anesthesiology and Intensive Care Clinic at "Acibadem City Clinic, UMBAL Tokuda" EAD, Sofia

The competition was announced in SG no 104 of 15.12.2023. The Scientific Jury was appointed on the basis of the RSARB under Art. 4, paragraph 2 and Art. 29a and art. 61 of the Regulations for the development of the academic staff of "Acibadem City Clinic UMBAL Tokuda" EAD and decision of the Scientific Council - Minutes No. 49 of 01.11. 2023, as well as Order No. 15-03-65#1 of 13.02.24 of the Executive Director and Mr. Procurator of Tokuda Hospital

Candidate: one, Dr. Bilyana Kamenova, doctor at the Anesthesiology and Intensive Care Clinic, "Acibadem City Clinic UMBAL Tokuda" . All the requirements for holding a competition have been met, the documents and evidence presented by the candidate have been checked.

Dr. Bilyana Kamenova was born in 1973, graduated from Medical University - Sofia (1987-1991) with a master's degree, uses written and spoken French and English. After graduating in medicine, he worked as an anesthesiologist initially at the "Tsaritsa Joana" Medical Center (1998 - 2005), SBALDOHZ (2005 - 2006), and from then until now he is at the "Tokuda" Medical Center as a resident doctor in the Anesthesiology and Intensive Care Clinic, providing anesthesia in a wide range of specialties: Orthopedics and Traumatology, Neurosurgery, ENT, Surgery, Maxillofacial Surgery, Obstetrics and Gynecology, Urology, Central Resuscitation. Conducted several specializations in the specialty: Hospital "Claude Huries" Lille, France (2002-2003), Clinic "Clinique de la Maye" France, Versailles (2009) , "Pontchaillou" Rennes, France (2015). In December 2003, he acquired a specialty in Anesthesiology and intensive care.

In 2020, he successfully defended his dissertation on "Anesthesia and intraoperative neurophysiological monitoring during surgical corrections of scoliosis in childhood". The dissertation analyzes the data from intraoperative neurophysiological monitoring (IONM) in 135 children operated for scoliosis, divided into two groups depending on the applied anesthesia. Monitoring includes somosensory and motor potentials, electromyography and electroencephalography. Describes and analyzes the observed complications, as well as the factors causing their occurrence.

As an asset in the current competition, Dr. Kamenova offers, in addition to the mentioned dissertation and four articles published for the dissertation as well as a monograph, 12 full-text articles, in 7 of which she is the lead author. She participated in 11 scientific forums at

home and abroad. It has been cited in 10 scientific publications in Bulgaria. Dr. Kamenova's scientific research and practical interests are directed in several directions:

Electrophysiological monitoring during surgical treatment of scoliosis in childhood. The dissertation and accompanying articles are included here, outlining several major contributions. For the first time in our country, a systematic approach is applied to the monitoring carried out by an anesthesiologist intraoperatively during surgical treatment of scoliosis in childhood. It proves the effectiveness of the methodology with the reduction of complications and morbidity in these interventions. An anesthesia and IONM protocol for surgical correction of scoliosis was also established, emphasizing the impact of neuromonitoring.

The monographic work "Electrophysiological monitoring and anesthesia during surgical corrections of scoliosis" has a relatively similar theme. Within 152 pages, it examines the history and basic principles of neuromonitoring, the technique of its implementation, richly illustrated with cases from practice. Here, for the first time in the literature in our country, protocols for behavior during intraoperative monitoring are presented. It is pointed out that neuromonitoring by the anesthesia team facilitates the interpretation of the results and eases care in the postoperative period.

Peculiarities of anesthesia when applying intraoperative neurophysiological monitoring. It emphasizes that electrophysiological monitoring is highly dependent on the applied anesthesia and the physiological homeostasis of the body, which is why it is desirable to be performed by a single team. This also allows the individual application of the anesthesia method. It presents unified protocols, which ensures stability of patients during surgery, reduces the risk of complications and facilitates the work of the team.

Perioperative period and anesthesia in surgical corrections of idiopathic scoliosis in childhood. Idiopathic scoliosis is a common pathology, 3% of the population, and about 10% of cases require surgical treatment. The perioperative period is associated with a number of peculiarities, due to the simultaneous involvement of the respiratory and cardiovascular apparatus. Attention has been paid to the features of the most frequently used antibiotics and their influence on electrophysiological monitoring. It presents behavioral algorithms tailored to the specifics of intraoperative neuromonitoring. A larger Cobb angle in scoliosis also suggests more complications.

Perioperative period and electrophysiological monitoring in pediatric patients with neuromuscular scoliosis. Surgical correction of neuromuscular scoliosis is associated with a high risk of perioperative complications. The multidisciplinary approach leads to optimization of the perioperative period and reduction of complications. Conducting electrophysiological monitoring is difficult due to existing diseases of the neuromuscular apparatus. Unification of perioperative protocols would greatly ease the care of these patients. The most common concomitant diseases are examined in detail. Of practical importance is the conclusion that transcranial electrical stimulation does not cause problems in children with epilepsy.

Organic acidemias - perioperative care in children. Organic acidemias and acidurias are congenital metabolic disorders in which enzymes or a transport protein involved in the

breakdown of amino acids, carbohydrates or lipids. Ignorance of the disease leads to late diagnosis and life-threatening manifestations. During surgical interventions, starvation and stress lead to acidosis. Here the peculiarities of anesthesia are presented, the impact of anesthetics in children is examined in detail and recommendations are given for anesthetic behavior guaranteeing the alkaline-acidic balance in the body.

I am convinced, on the basis of personal impressions, the presented scientific publications and other evidentiary material, as well as the personal qualities of Dr. Bilyana Kamenova, that she fully meets the required mandatory criteria for acquiring the academic position of "Associate Professor", according to the ZRASRB, the Rules for its application in "Ajibadem City Clinic UMBAL Tokuda".

For these reasons, I find it fully justified to give my positive vote for the election of Dr. Bilyana Petrova Kamenova to occupy the academic position "Associate Professor" in the scientific specialty "Anesthesiology and Reanimation" for the needs of the Anesthesiology and Intensive Care Clinic at "Acibadem City" Clinic UMBAL Tokuda» EAD.

15.03.2024

Prepared opinion:

(Prof. Dr. Hristo Tsekov, PhD)