

G.B. ADILBAYEV¹, M.E. KAIBAROV¹, N.V. SLONEVA¹

¹JSC "Kazakh Institute of Oncology and Radiology," Almaty, the Republic of Kazakhstan

The history of the development of the Center for Head and Neck Tumors of the Kazakh Institute of Oncology and Radiology

The Center for Head and Neck Tumors of Kazakh Institute of Oncology and Radiology (Almaty) is the only center in the Republic that provides highly specialized medical services and counseling to patients with head and neck tumors. The Center focuses on head and neck malignant tumors, except for brain tumors. Specialists of the Center completed internships in near and far abroad countries.

Keywords: head and neck tumors, oncolaryngology, malignant tumors, diagnostics, treatment.

Doctor of Medical Sciences, Professor Sofya Shakirovna Baymakanova has organized the Department of Head and Neck Tumors at the Kazakh Research Institute of Oncology and Radiology (KazIOR) and headed it from 1961 till 1983 (Figure 1). She was born on 22 December 1929. She was the first Kazakh female professor and doctor of medical sciences. She headed the Department of ENT diseases at the Almaty State Institute for Advanced Medical Studies (now the Kazakh Medical University of Continuing Education).



Figure 1 – S.Sh. Baymakanova, head of the Department of Head and Neck Tumors at KazIOR (1961-1983)

Sofya Shakirovna was the founder of the scientific school of oncolaryngology and oncostomatology in Kazakhstan. She supervised the introduction into practice of methods for obtaining material for cytological analyzes from hidden and deeply located tumors of the head and neck, endoscopic urethroscope-, cystoscope-, and stomatoscope-based techniques (given the lack of the necessary instruments in those years), the development and wide use by doctors of all possible rational combinations of surgical, radiation, chemotherapy and immunomodulatory treatment.

In 1963-1970, the Department staff carried out expeditionary studies of oropharyngeal pathology by WHO order. They studied the statistics of tumors and background pathology of this localization and the role of harmful and occupational factors. Those studies were the basis for one doctoral (S.Sh. Baymakanova) and two candidate's (L.L. Burd, S.K. Kairkenov) theses.

They studied the issues of diagnosing and differentiation of malignant processes from a variety of non-malignant processes in this location (B.E. Ermekbaeva, R.K. Kurmasheva, B.N. Nurguzhaeva defended their candidate's theses).

In 1972, S.Sh. Baymakanova was awarded the Doctor of Science degree for the research "Malignant tumors and background processes of the upper respiratory tract in Kazakhstan." In 1982, she was awarded the title of professor.

S.Sh. Baymakanova supervised the preparation and successful defense of the doctoral and 16 candidate's theses, published 243 scientific works and four monographs. She has made 19 rationalization proposals and received four author's certificates for inventions. Four out of her 17 methodological recommendations described unique larynx surgery methods and were recommended for implementation throughout the Soviet Union. Her developments are still widely used today all over the world, in the leading clinics for head and neck tumors.

Sofya Shakirovna is a veteran of labor, an excellent worker in health care, a socially active, benevolent person who has provided medical care to more than one thousand patients, as evidenced by numerous letters of thanks and telegrams addressed to her.

From 1987 to 1991, the Department has been part of the General Cancer Surgery Department managed by prof. A.K. Kosaev (Figure 2). He has worked in oncology for 50 years, including 44 years at KazIOR. His creative contribution to the development of oncology in Kazakhstan was diverse: he was one of the founders of the scientific area of epidemiology, prevention, diagnostics, and treatment of bone and soft tissue sarcomas; has been actively engaged in the improve-

ment of all components of modern complex treatment – surgical, drug and radiation – of primary malignant bone tumors.



Figure 2 – A.K. Kosaev, head of the Department of Head and Neck Tumors at KazIOR (1987-1991)

The Department became independent again in 1991. In 1991-2016 it was headed by the Doctor of Medical Sciences, Professor G.B. Adilbaev (Figure 3). He started working at KazIOR in 1976 as a junior researcher at the Department of Head and Neck Tumors. Galym Bazenovich was the first time in Kazakhstan to introduce reconstructive plastic surgery using complex arterialized musculo-cutaneous, fascial cutaneous, free flaps, and combined plastic methods to eliminate extensive soft tissue and bone defects in the head and neck region. In 2000, for the first time in Kazakhstan, he performed tracheoesophageal bypass surgery with the installation of voice prostheses to restore the voice after the complete removal of the larynx in cancer patients. G.B. Adilbaev was one of the founders and a member of the steering committee of the Eurasian Society of Head and Neck Oncology (EASHNO). G.B. Adilbaev supervised the defense of one doctoral and four candidate's theses. He was the author of 247 scientific works, two monographs including "Complex treatment of malignant tumors of the head and neck (reconstructive and plastic surgery, chemoradiation therapy, immunotherapy)" and "Selected Chapters of head and neck tumors," seven methodical recommendations, eight rationalization proposals, 16 patents for inventions. In 1998 and 2001, G.B. Adilbaev was awarded the badge "For excellence in health care of the Republic of Kazakhstan." In 2011, he was awarded an honorary title "Honored Worker of Kazakhstan" and diplomas of the Republican and local significance.

From 2017 to the present, the Center of Head and Neck Tumors at KazIOR is headed by M.E. Kaibarov, Candidate of Medical Sciences, oncologist of the highest category, a surgeon, member of the Eurasian Federation of Oncology (EAFO), member of the Association of oncologists of Kazakhstan, a teacher at the departments of oncology of Asfendiyarov Kazakh National Medical University and Kazakh-Russian Medical University (Figure 4).



Figure 3 – G.B. Adilbaev, head of the Department of Head and Neck Tumors at KazIOR (1991-2016)



Figure 4 – M.E. Kaibarov, head of the Center of Head and Neck Tumors at KazIOR (from 2017 till today)

In the years past, the specialized department's research interests were changing over time following the achievements of world science and the requirements of the time. Different variants of radiation therapy, combined treatment of head and neck tumors, systemic and regional mono- and polychemotherapy have been studied and widely implemented into practice, the clinical efficacy and sensitivity to anticancer drugs were tested in tissue culture, the issues immunotherapy were explored (candidate's theses on the named topics were defended by N.V. Borisevich, G.S. Tulebaeva, T.T. Turekulov, G.B. Adilbaev, D.Kh. Savkhatov).

The main scientific achievement of recent years was the development of functional organ-preserving treatment of head and neck malignant tumors based on optimized delivery of radiomodifiers, chemotherapy drugs to the tumor, and the use of reconstructive plastic surgery and immunotherapy (doctoral theses by G.B. Adilbaev (1998), D.Kh. Savhatova (2000), candidate's theses by V.V. Shipilova (20004), D.Zh. Kydyrbaeva (2005), M.E. Kaibarova (2008), D.N. Akhmetov (2009), D.G. Adilbay (2010)).

In 50 years, the Department staff has defended 15 candidate's and three doctoral theses, published about 400 scientific papers, six monographs, 15 Methodical recommendations, received 17 certificates of authorship.

In 2013, the Department employee D.G. Adilbay and the Department graduate-resident D. Akhmedin, with the support of the Almaty Department of Head and Neck Tumors, have opened a second branch of the Department in Astana to improve the coverage of patients with head and neck tumors with high-quality cancer care.

Solving problems of diagnostics and increasing the effectiveness of treatment of malignant tumors depends on close interaction and exchange of experience of colleagues from different countries of the world. Therefore, the Department employees are engaged in active international cooperation. In 2008, with the creation of the Kazakhstan Association of specialists in head and neck tumors, we became a member of the International Federation of Head and Neck Oncologic Societies (IFHNOS). This organization, initiated in 1998 by prof. Sh. A. Jatin in New York, US, is one of the most influential global organizations in head and neck oncology. In 2019, D.G. Adilbay became a member of the governing board of IFHNOS.

Realizing the need for integration in the international scientific community, which is hindered by the low level of knowledge of English by the doctors in Kazakhstan and the whole region, we have taken an active part in the establishment in 2009 of the Eurasian Society of Specialists in Head and Neck Oncology (EASHNO), which is an affiliated community of the Eurasian Federation of Oncology. In May 2011, Almaty hosted the II Eurasian Congress of Head and Neck Tumors, which gathered about 400 delegates from 35 countries. This congress was of great scientific and practical importance for the health care of Kazakhstan. Participation in the Congress allowed our young professionals to improve their skills and establish contacts with foreign colleagues.

Since 2015, the European Head and Neck Society holds the annual "European Head and Neck Cancer (HNC) Early Diagnosis Week," which includes two stages. At stage one, leading oncologists of Russia and Kazakhstan teach ENT doctors and dentists in HNC early diagnostics. At stage two, every citizen of Kazakhstan can pass a free examination for early detection of head and neck neoplasms conducted by a multidisciplinary team of experts composed of an oncologist, ENT doctor, and dentist.

The Department of Head and Neck Tumors continues its practical and scientific development. Two scientific projects funded by MES grants were successfully completed by the Department staff under the leadership of G.B. Adilbaev. The first project investigated the human papillomavirus impact on oropharyngeal cancer development; a resulting article was published in a high impact factor journal. In the second grant framework, our team has developed a unique system of stratification of patients with differentiated thyroid cancer for correct radioiodine therapy administration; articles and guidelines have been published. In the near future, we plan to study the Epstein-Barr virus and its subtypes impact on the population of Kazakhstan and its role in nasopharyngeal cancer development. The research will help identify the causes of nasopharyngeal cancer in Kazakhstan and compare them with China, where nasopharyngeal cancer incidence is extremely high. The Department staff has big ambitions for the future and plans to continue its scientific development and international cooperation with the world's leading centers.

Thus, during 60 years of its history, the Department of Head and Neck Tumors, which is an integral part of KazIOR, passed a difficult but successful path and achieved significant positive results. The Department staff honorably fulfills its duties to provide diagnostic, therapeutic, and preventive care to the population of the Republic of Kazakhstan with malignant neoplasms of the head and neck.

ТҰЖЫРЫМ

Ғ.Б. Әділбаев¹, М.Е. Қайбаров¹, Н.В. Слонева¹

¹«Қазақ онкология және радиология ғылыми-зерттеу институты» АҚ, Алматы, Қазақстан Республикасы

Қазақ онкология және радиология ғылыми-зерттеу институтының бас және мойын ісіктері орталығының даму тарихы

Қазақ онкология және радиология ғылыми-зерттеу институтының бас және мойын ісіктері орталығы (Алматы қаласы) бас және мойын ісіктері бар науқастарға жоғары мамандандырылған медициналық және консультациялық көмек көрсететін республикадағы жалғыз орталық болып табылады. Бөлімнің негізгі профилі миды қоспағанда, бас және мойын мүшелерінің қатерлі ісіктерін емдеу. Орталықта жақын және алыс шетелдерде тағылымдамадан өткен жоғары білікті мамандар жұмыс істейді.

Түйін сөздер: бас және мойын ісіктері, онколарингологтар, қатерлі ісіктер, диагностика, емдеу.

АННОТАЦИЯ

Ғ.Б. Адильбаев¹, М.Е. Кайбаров¹, Н.В. Слонева¹

¹АО «Казакский Научно-исследовательский институт онкологии и радиологии», Алматы, Республика Казахстан

История развития Центра опухолей головы и шеи Казахского научно-исследовательского института онкологии и радиологии

Центр Опухолей Головы и шеи Казахского научно-исследовательского института онкологии и радиологии (г. Алматы) является единственным в Республике центром, где оказывают высокоспециализированную медицинскую и консультативную помощь больным с опухолями головы и шеи. Основным профилем отделения стали злокачественные опухоли органов головы и шеи, за исключением головного мозга. В Центре работают высококвалифицированные специалисты, прошедшие стажировку в странах ближнего и дальнего зарубежья.

Ключевые слова: Опухоли головы и шеи, онколарингология, злокачественные опухоли, диагностика, лечение.