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Moisei Schwartz: A military surgeon, educator, and researcher

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ABSTRACT

The personnel of the Department of Dentistry (after 1942, the Department of Maxillofacial Surgery and Dentistry) of the Military Medical Academy named after S.M. Kirov made major contributions to the advancement of dentistry and maxillofacial surgery in Russia. This essay focuses on the professional life of Associate Professor Moisei Schwartz, Major of the Medical Service, whose research significantly contributed to experimental dentistry and periodontology. The essay uses the data presented in Russian literature on dentistry and maxillofacial surgery, as well as the recollections of dentists who knew Moisei Schwartz personally: V.P. Zabelin, Colonel of the Medical Service, and Associate Professor V.V. Fiolkovsky, Colonel of the Medical Service.

Associate Professor Moisei Schwartz, Major of the Medical Service, performed several studies of the functional properties of jaw vessels, primarily mandibular vessels. He was the first to use the Kravkov–Pisemsky technique in dentistry to assess the effect of biogenic amines on isolated jaw vessels. His comparative studies of ear and jaw vessels in dogs using this technique revealed that jaw vessels are hypersensitive to acetylcholine, histamine, and adrenaline. In 1936, Moisei Schwartz developed an experimental periodontitis model using chronic irritation (ligation) of the inferior alveolar nerve in dogs.

Moisei Schwartz fought in the Soviet–Finnish War of 1939–1940, as well as the World War II (1941–1945).

Moisei Schwartz was a prominent scientist and experienced doctor with good manual skills, including surgical care in maxillofacial wounds. Moreover, he was a passionate researcher and educator. His contributions to experimental dentistry and periodontology are impossible to exaggerate.

Keywords: Moisei Schwartz; Military Medical Academy named after S.M. Kirov; dentistry; periodontology; periodontal disease; mandible; periodontitis; maxillofacial surgery; military medicine; Soviet–Finnish War; World War II.

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Военный врач, педагог, исследователь (эссе о Моисее Соломоновиче Шварце)

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АННОТАЦИЯ

Сотрудники кафедры стоматологии (с 1942 года — челюстно-лицевой хирургии и стоматологии) Военно-медицинской академии имени С.М. Кирова внесли большой вклад в развитие отечественной стоматологии и челюстно-лицевой хирургии. В эссе показана профессиональная карьера доцента, майора медицинской службы Моисея Соломоновича Шварца, исследования которого внесли весомый вклад в экспериментальную стоматологию и пародонтологию. Статья подготовлена на основании сведений, изложенных в отечественной литературе по стоматологии и челюстно-лицевой хирургии, и воспоминаний стоматологов, лично знавших М.С. Шварца, а именно полковника медицинской службы В.П. Забелина и доцента, полковника медицинской службы В.В. Фиолковского.

Отмечено, что майор медицинской службы, доцент М.С. Шварц провёл серию исследований, посвящённых изучению функциональных свойств сосудов челюстей, главным образом нижней челюсти. Он первый в стоматологии применил методику Кравкова–Писемского, что позволило изучать влияние на сосуды изолированной челюсти биогенных аминов. Сравнительное изучение с применением указанной методики сосудов уха и челюсти собаки позволило установить повышенную чувствительность последних к ацетилхолину, гистамину и адреналину. В 1936 году М.С. Шварцем был экспериментально воспроизведён пародонтоз (альвеолярная пиорея) при помощи хронического раздражения (лигирования) нижнеальвеолярного нерва у собаки.

Отмечено участие М.С. Шварца в советско-финляндской (зимней) войне 1939–1940 гг., а также в Великой Отечественной войне 1941–1945 гг.

Моисей Соломонович Шварц был крупным учёным, хорошим врачом, имеющим добротные мануальные навыки, в том числе по оказанию хирургической помощи при челюстно-лицевом ранении. Кроме того, он был вдумчивым исследователем и требовательным педагогом. Его вклад в развитие экспериментальной стоматологии и пародонтологии сложно переоценить.

Ключевые слова: М.С. Шварц; Военно-медицинская академия; стоматология; пародонтология; пародонтоз; нижняя челюсть; альвеолярная пиорея; челюстно-лицевая хирургия; военное здравоохранение; советско-финляндская (зимняя) война 1939–1940 гг.; Великая Отечественная война 1941–1945 гг.

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INTRODUCTION

By the early 20th century, many aspects of the pathogenesis of periodontal diseases, including periodontitis, had already been thoroughly investigated. The personnel of the Department of Dentistry (after 1942, the Department of Maxillofacial Surgery and Dentistry) of the S.M. Kirov Military Medical Academy in Leningrad made major contributions to these studies. The department was led by Professor David Entin, Doctor of Medical Sciences, Major General of the Medical Service, and Honored Scientist of the RSFSR. This distinguished scientist and educator was one of the pioneers of military dentistry in Russia. His name is well-known among dentists and maxillofacial surgeons [1–3]. However, little to nothing is known about the personnel of his department and clinic. Thus, it appears appropriate to mention S.M. Kirov Military Medical Academy researchers who made major contributions to the advancement of dentistry and maxillofacial surgery.

This essay focuses on the professional life of Associate Professor Moisei Schwartz, Major of the Medical Service, whose research significantly contributed to experimental dentistry and periodontology. The essay uses the data presented in Russian literature on dentistry and maxillofacial surgery, as well as the recollections of dentists who knew Moisei Schwartz personally: V.P. Zabelin, Colonel of the Medical Service, and Associate Professor V.V. Fiolkovsky, Colonel of the Medical Service.

LIFE OF MOISEI SCHWARTZ

Moisei Schwartz, Major of the Medical Service (Fig. 1), is unlikely to be well-known among modern dentists and military doctors. However, he made substantial contributions to both experimental and clinical dentistry.

Moisei Schwartz was born in 1900 into a family of white-collar workers. He graduated from the Kharkov Institute of Dentistry in 1926 and from the Kharkov Medical Institute in 1930, four years later. Thus, Schwartz already had a degree in dentistry when he enrolled in the Kharkov Medical Institute. As a result, while studying for his medical degree, he simultaneously maintained a job of teaching assistant at the Department of Therapeutic Dentistry at the Kharkov Institute of Dentistry for more than 4 years.

From 1931 to 1946, Schwartz held a teaching position at the Department of Dentistry. Since 1942, he began teaching in the Department of Maxillofacial Surgery and Dentistry at the S.M. Kirov Military Medical Academy. He gave lectures on dentistry and maxillofacial surgery to academy students and course participants at different faculties, except for the time when he was ordered to



Fig. 1. Associate Professor Moisei Schwartz, Major of the Medical Service.

the front. During the Soviet-Finnish War of 1939–1940, Moisei Schwartz served as a physician in the Military Medical Academy's field hospital. During World War II (1941–1945), he was a military dentist for the 23rd Army on the Leningrad Front [4]. In 1946, he was invalided out of the Army.

Schwartz conducted active research in experimental dentistry while serving as a teacher at the Military Medical Academy. During his time at the Military Medical Academy, he performed several studies of the functional properties of jaw vessels, primarily mandibular vessels. He was the first to use the Kravkov–Pisemsky technique in dentistry to assess the effect of biogenic amines on isolated jaw vessels. His comparative studies of ear and jaw vessels in dogs using this technique revealed that jaw vessels are hypersensitive to acetylcholine, histamine, and adrenaline [5]. In 1936, under the guidance of David Entin, Schwartz developed an experimental periodontitis model using chronic irritation (ligation) of the inferior alveolar nerve in dogs [6].

Notably, Schwartz received one of the two first prizes for outstanding research works in dentistry in the USSR for the last five years at a contest held by the All-Russian Dental Society in 1937. This award was given to him for his experimental research on the etiopathogenesis of periodontitis. In 1937, as a result of these studies, he

received a degree of Candidate of Medical Sciences. In 1946, shortly before his military discharge, he received a degree of Associate Professor.

In 1938, Schwartz confirmed the presence of vasoconstrictor fibers in the mental nerve and reported a phenomenon characterizing the autonomic function of the neurovascular apparatus of the mandible [7]. Notably, these nearly 9-year-long studies helped understand the pathogenesis of periodontitis and significantly contributed to the advancement of dentistry [4, 8].

Moisei Schwartz was awarded the Order of the Patriotic War, 2nd class, two Orders of the Red Star, Medal for Combat Service, Medal for the Defense of Leningrad, and Medal for Victory over Germany. Interestingly, he was Professor Efim Gofung's son-in-law.

Moisei Schwartz, Major of the Medical Service, was a prominent scientist and experienced doctor with good manual skills, including surgical care in maxillofacial wounds. V.V. Fiolkovsky and V.P. Zabelin, his colleagues from the Military Medical Academy's Department of Maxillofacial Surgery and Dentistry, recalled him as a passionate researcher and educator. His contributions to experimental dentistry and periodontology are impossible to exaggerate.

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CONCLUSION

Nowadays, students, medical residents, and physicians (especially young ones), as well as lecturers at dentistry departments of medical institutions in our country, pay little attention to the history of dentistry. However, studying the history of dentistry and maxillofacial surgery can help discover interesting facts regarding the emergence and evolution of these therapeutic areas, find similarities with present times, and gain insight into the treatment and rehabilitation of patients with maxillofacial and dental diseases, as well as modern military healthcare. We feel that Moisei Schwartz, a veteran of two wars, contributed much to military medicine and his country in general, as well as dentistry and maxillofacial surgery in particular. His name should be remembered by future generations of dentists and maxillofacial surgeons.

ADDITIONAL INFORMATION

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