

The Development of Pain Management (Algology) in Türkiye and Worldwide*

Türkiye ve Dünyada Ağrı Yönetiminin (Algoloji) Gelişimi

Şebnem Rumeliⁱ, Mesut Bakırⁱⁱ

ⁱProf., Mersin University Faculty of Medicine, Department of Anesthesiology and Reanimation, Division of Algology
https://orcid.org/0000-0002-7042-6934

ⁱⁱAssoc.Prof., Mersin University Faculty of Medicine, Department of Anesthesiology and Reanimation, Division of Algology,
https://orcid.org/0000-0002-3627-3882

ABSTRACT

Pain management, or algology, has developed significantly over the years, evolving from a basic understanding of pain to a specialized field of medicine. Historically, pain was attributed to supernatural causes, but advancements in anatomy, physiology, and neuroscience laid the groundwork for modern pain medicine. A pivotal moment came in the 1960s with the Gate Control Theory, which reshaped the understanding of pain perception. This period also saw the establishment of global organizations like the International Association for the Study of Pain (IASP) and the World Institute of Pain (WIP), promoting research, education, and certifications such as FIPP and EDPM.

Globally, pain management became a recognized medical subspecialty in the late 20th century, with countries like the United States and Europe creating certification systems and multidisciplinary training programs. These efforts standardized pain care and emphasized a holistic approach, integrating pharmacological, psychological, and physical therapy interventions.

In Türkiye, the term "algology" reflects its distinct recognition of pain as a specialized field. Algology was officially recognized as a medical subspecialty in 2011, with structured training programs established shortly after. Today, Turkey has over 400 certified algologists trained in centers equipped to provide both interventional and multidisciplinary care.

The development of pain management worldwide and in Turkey underscores a shared commitment to improving patient care. With ongoing advancements, the field continues to evolve, aiming for broader accessibility and more innovative, patient-centered treatments.

Keywords: Historical evolution, Pain history, Pain management

ÖZ

Ağrı yönetimi ya da algoloji, yıllar içinde temel bir ağrı anlayışından tıbbi bir uzmanlık alanına dönüşerek önemli ölçüde gelişmiştir. Tarihsel olarak ağrı, doğaüstü nedenlere atfedilmiş olsa da anatomi, fizyoloji ve sinir bilimi alanlarındaki ilerlemeler modern ağrı tıbbının temellerini atmıştır. 1960'larda Melzack ve Wall tarafından geliştirilen Kapı Kontrol Teorisi (Gate Control Theory), ağrı algısının anlaşılmasında dönüm noktası olmuştur. Bu dönem, aynı zamanda Uluslararası Ağrı Araştırma Derneği (IASP) ve Dünya Ağrı Enstitüsü (WIP) gibi küresel organizasyonların kurulmasıyla, araştırma, eğitim ve FIPP ile EDPM gibi sertifikasyon süreçlerinin teşvik edildiği bir dönemdir.

Küresel olarak, ağrı yönetimi 20. yüzyılın sonlarında tanınmış bir tıbbi yan dal haline gelmiş, Amerika Birleşik Devletleri ve Avrupa gibi ülkelerde sertifikasyon sistemleri ve multidisipliner eğitim programları oluşturulmuştur. Bu çabalar, ağrı tedavisinde standartlaşmayı sağlamış ve farmakolojik, psikolojik ve fizik tedavi müdahalelerini içeren bütüncül bir yaklaşımı vurgulamıştır.

Türkiye'de ise "algoloji" terimi, ağrının özel bir alan olarak tanınmasını yansıtmaktadır. Algoloji, 2011 yılında tıbbi bir yan dal olarak resmen tanınmış ve hemen ardından yapılandırılmış eğitim programları oluşturulmuştur. Günümüzde, Türkiye'de 400'ün üzerinde algolog, girişimsel ve multidisipliner tedavi sunan merkezlerde eğitim almıştır.

Dünyada ve Türkiye'de ağrı yönetiminin gelişimi, hasta bakımını iyileştirme konusundaki ortak bir taahhüdü ortaya koymaktadır. Sürekli ilerlemelerle birlikte bu alan, daha geniş erişilebilirlik ve yenilikçi, hasta odaklı tedaviler sunma yönünde gelişimini sürdürmektedir.

Anahtar Kelimeler: Ağrı tarihi, Ağrı yönetimi, Tarihsel evrim

*Mersin Üniversitesi Tıp Fakültesi Lokman Hekim Tıp Tarihi ve Folklorik Tıp Dergisi 2025;15(2):471-475

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İletişim - Correspondence Author: Mesut Bakır <mesutbakir@gmail.com>



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Introduction

Pain, as a human experience, has been both a source of suffering and an important indicator of disease throughout history. The formalization of pain management (algology) as a medical specialty, however, is a relatively recent development. This paper explores the historical background and growth of pain management, focusing on its development in Turkey and around the world. We will highlight the pivotal role of key figures like Prof. Dr. Serdar Erdine, the establishment of organizations such as the Turkish Algology-Pain Society, the evolution of pain education, and the significance of global certification processes like the Fellow of Interventional Pain Practice (FIPP) and the European Pain Federation Diploma (EDPM).

The terminology used for pain medicine varies across countries, reflecting both linguistic preferences and historical developments. In countries Greece and Turkey, the term '*ALGOLOGY*' is commonly used, derived from the Greek word "algos," meaning pain. This terminology emphasizes the study and treatment of pain as a distinct branch of medicine in Turkey since 2011. In contrast, many other countries, such as the United States, United Kingdom, and across Europe, use the term 'pain management', 'pain specialist' or 'pain medicine' to describe this specialty. These terms are intended for use by those who manage pain within different specialties due to the multidisciplinary approach to pain. Although differences in terminology vary according to cultural and medical traditions as well as the structure of the health sector in each country, the similarity in the approach to patients with pain worldwide is maintained by meetings where different disciplines come together.¹

International Development of Pain Medicine

Early History and Global Milestones

Pain management has been practiced in various forms for thousands of years, but it wasn't until the 20th century that it began to emerge as a distinct medical discipline.² Ancient civilizations attributed pain to supernatural causes, but with advances in anatomy, physiology, and neurology, pain began to be understood as a complex physiological and psychological experience.³

The formalization of pain medicine as a field began in the 1960s.⁴ The development of the Gate Control Theory of Pain by Ronald Melzack and Patrick Wall in 1965 revolutionized the understanding of how pain signals are processed in the nervous system. This theory laid the foundation for modern pain management approaches and highlighted the importance of both physical and psychological factors in pain perception.⁵

The establishment of the International Association for the Study of Pain (IASP) in 1973 marked a turning point in the global recognition of pain medicine as a specialty. The IASP brought together professionals from different fields, including anesthesiology, neurology, psychology, and physical medicine, to create a multidisciplinary approach to pain management. The IASP's efforts in research, education, and advocacy have been instrumental in advancing the understanding and treatment of pain worldwide.⁶

The World Institute of Pain (WIP), has played a key role in advancing pain management on the international stage. The WIP focuses on interventional pain techniques, promoting education and standardization through the Fellow of Interventional Pain Practice (FIPP) certification. The FIPP examination is regarded as one of the highest certifications in the field of interventional pain management, testing physicians on their ability to perform advanced pain procedures with precision and safety.

Pain Medicine as a Subspecialty

The formal recognition of pain medicine as a subspecialty began in the United States with the American Board of Anesthesiology in 1991, when it was approved to certify physicians in pain management. The first

certification exams were held in 1993, and since then, pain medicine has expanded to include multiple specialties, such as neurology and rehabilitation medicine.⁷

In Europe, the European Pain Federation (EFIC) was established in 1993, playing a crucial role in promoting pain education and research. EFIC's European Diploma in Pain Medicine (EDPM) is a widely respected certification that ensures physicians across Europe have a standardized level of expertise in diagnosing and treating pain.

The Faculty of Pain Medicine (FPM) in Australia and New Zealand, founded in 1998 under the Australian and New Zealand College of Anaesthetists (ANZCA), is another leading institution that oversees pain medicine training and certification. Its programs emphasize a multidisciplinary approach to pain management, covering acute, chronic, and cancer pain.⁸

Pain Education and Certification Worldwide

In addition to the FIPP certification, the European Pain Federation (EFIC) offers the European Diploma in Pain Medicine (EDPM). The EDPM is designed to standardize pain education across Europe and ensures that physicians meet a high standard of expertise in pain management. Similarly, the American Board of Pain Medicine (ABPM) offers certification in pain medicine, which complements other subspecialty certifications in anesthesiology, neurology, and rehabilitation medicine.⁹

These international certifications are critical in ensuring that pain management specialists are equipped with the latest knowledge and skills. They also provide a framework for ongoing professional development, enabling physicians to stay updated on emerging techniques and treatments in the field of pain medicine.

History of Pain Management in Turkey

The history of pain management in Turkey is largely defined by the work of Prof. Dr. Serdar Erdine (**Figure 1**), who founded the Turkish Algology-Pain Society in 1987.¹⁰ Prof. Dr. Serdar Erdine also played an important role in the structuring of pain education as a scientific discipline in Turkey and in the processes of including our country in global certifications such as the Federation of Interventional Pain Practice (FIPP) and the European Diplomacy of Pain (EDPM).



Figure 1. Prof Serdar Erdine

By 2011, pain management was formally recognized as a medical subspecialty in Turkey (Division of Algology), with the first cohort of fellows completing their education in 2015. Turkey currently has over 400 certified pain physicians who have received their expertise through 31 centers across the country. These centers offer a two-year fellowship program that focuses on comprehensive pain management, including both interventional techniques and multidisciplinary approaches. Specialists who can receive Algology training are anesthesiology, neurology, and physical therapy specialists; it provides a comprehensive approach to pain management and allows for the integration of expertise from these three areas.

The first organization that envisioned pain management becoming a branch, the World Pain Institute (WIP), was founded in 1993 and Turkey took part in this organization. Since then, WIP has become one of the largest organizations that organize and develop pain management globally. With this development in Turkey, which is synchronized with the world, our physicians and related associations have begun to take more place in international pain management communities, join organizations and host various international congresses. With this development in Turkey, which is synchronized with the world, our algologists and related associations have begun to take more place in international pain management communities, join organizations and host various international congresses.

Since its establishment, the Turkish Algology-Pain Society continues to be an important institution that is effective in organizing national and regional meetings to improve pain management practices throughout Turkey, as well as structuring specialist training accreditations and competency exams. It also publishes the Journal of Pain, an important publication disseminating pain-related research. The Accreditation Board of the Turkish Algology issues a certificate of competence to clinics providing pain education. 13 programs providing education in Turkey have competency certificates. 4 of these programs have been re-accredited.

Pain Education in Turkey

In order to become a specialist physician (algologist) in pain management and treatment, the Ministry of Health introduced a 2-year education requirement in Turkey in 2011. A core education curriculum was created by a committee where the pain association was also represented. The features and education content that clinics that will provide education should have were determined in this curriculum. Every two years, these clinics are inspected by the Ministry of Health, the required qualifications are questioned and their education certificates are renewed. The education permits of clinics that do not meet the features are canceled.

The curriculum emphasizes both theoretical knowledge and practical experience, including advanced interventional techniques used for pain treatment such as nerve blocks, spinal injections, radiofrequency ablation, and spinal cord stimulation. The education also includes multidisciplinary approaches that integrate pharmacological treatment, physical therapy, and psychological support.

Conclusion

The development of pain management as a medical specialty has been a global journey, marked by the efforts of pioneers like Prof. Dr. Serdar Erdine and organizations like the IASP, WIP, and EFIC. In Turkey, the formal recognition of algology in 2011 and the establishment of comprehensive training programs have contributed to the growth of a skilled pain management workforce. Internationally, the establishment of certifications like the FIPP and EDPM ensures that pain specialists across the world are held to the highest standards of care.

As the field continues to evolve, the future of pain management will likely focus on integrating emerging technologies, refining interventional techniques, and ensuring that access to high-quality pain care is available to all patients, regardless of geographical location.

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Author Contributions

Şebnem Rumeli: Idea/concept, design, supervision, interpretation, writing the article, critical review.

Mesut Bakır: Data collection and processing, interpretation, literature review, writing the article, critical review.

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