

THE DEVELOPMENTAL PATH OF QUININE: WHAT CAN WE LEARN FROM HISTORY?

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Almost 200 years have passed since the pure substance was first isolated, but scientists still face similar challenges. Quinine—the first chemotherapeutic agent in the treatment of malaria—is one of the good examples from history that testifies to the challenges in drug development.

The aim of the paper was to present the history of the discovery and synthesis of quinine and its importance in medicine.

Descriptive research was conducted using secondary data sources during September and October 2022.

Quinine is one of the first active substance whose effectiveness has been proven in clinical research. Its widespread consumption soon led to a shortage of quinine, and new sources of this valuable active substance had to be provided. The challenges of plantation cultivation were solved by developing botany and its chemical synthesis through organic chemistry. By researching quinine, numerous pharmacologically active substances such as caffeine and methylene blue were found, which would start a revolution in the chemical industry and the industry of organic synthesis. With the development of resistance to antimalarials, quinine experienced its heyday again because it proved to be effective even in resistant strains.

Quinine represents a significant historical discovery that influenced the development of many scientific disciplines, primarily pharmacy, medicine, and organic chemistry. The history of quinine provides us with an important historical lesson that we need to be aware of in today's time when the pharmacy is facing the significant challenges of developing new drugs. *Acta Medica Medianae* 2023;62(2): 61-70.

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