Silver Salts in Dermatological Pathology

Dragoș-Florentin HUSANU¹, Leonard GURGAȘ², Laurentiu Tony HANGAN², Natalia ROSOIU^{1,2,3}

DOI https://doi.org/10.56082/annalsarscibio.2021.1.52

Abstract

This paper is an overview of the beneficial effects of silver salts in medical practice. Silver can be found in nature as a pure element, but occurs more frequently in ores, including argitanite (Ag_2S) and silver chloride (AgCl); it is also found in combination with lead, lead-zinc, copper, gold and copper-nickel

Keywords: silver salts, dermatological patgology, argitanite (Ag₂S), silver chloride (AgCl)

Introduction

The Chaldeans, since 4000 BC, knew the importance of metallic silver. It ranks third among the metals used in ancient history, after gold and copper (1).

And the so-called "father of history", Herodotus, wrote on this subject saying that the Persian kings (Cyrus, for example) drank only water that was preserved in certain silver containers and had the property of keeping it fresh for years. It is easy to intuit the importance of silver in military conflicts when drinking water was not easily found (2). In fact, the Phoenicians, Greeks, Romans, Egyptians used silver to preserve water and food. This happened to including in the Second World War. It is also known in history that in order to heal wounds, or to prevent and treat infections, Macedonians were the first to apply silver plates on them. In this sense, in a pharmacopoeia published in the year 69 BC Rome is talking about using silver nitrate for medical purposes (1).

Properties

Silver has an atomic weight of 107,870 and an atomic number of 47 (3). It can be found in nature as a pure element, but occurs more frequently in ores, including argitanite (Ag₂S) and silver chloride (AgCl); it is also found in combination with lead, lead-zinc, copper, gold and copper-nickel (3). The pure

¹ ISD, Doctoral School of Applied Sciences, Ovidius Constanta University

² University Ovidius Constanta, Faculty of Medicine, Romania

³Academy of Romanian Scientists

^{*} Corresponding author: Husanu Dragos mail: dragos_husanu@yahoo.com