

Dioscorides' recipes in two Croatian books of folk recipes

Suzana Inić^{*1}, Petra Gašparac¹, Marijana Zovko Končić¹

¹University of Zagreb Faculty of Pharmacy and Biochemistry, Ante Kovačića 1, 10000 Zagreb, Croatia

Introduction

The most influential ancient physician, pharmacobotanist and the first pharmacognosist was Dioscorides (c. AD 60) (Sonnedecker 1976). Dioscorides' recipes and use of medicinal plants can also be found in Croatian medieval monastic medicine recorded in *ljekaruše*. Preliminarily, recipes with drugs of plant and animal origin from Dioscorides' *De materia medica* and recipes in two Croatian books of folk recipes from the 17th and 18th centuries in Latin transliteration and transcription were compared. These are recipes with herbal drugs which are most often mentioned in Croatian books of folk recipes and which grow in the region as well as the use of some animals and drugs of animal origin which were part of folk medicine at the time. Special attention was also given to some particularities of the analysed books of folk recipes.

Croatian books of folk recipes

The tradition of Croatian folk medicine has been preserved in special manuscripts called *ljekaruše*. *Ljekaruše* are recipe collections with instructions for the treatment of humans and animals. They were written by priests who were the most educated portion of the population in rural areas where these textbooks provided the only form of treatment (Šušnić-Fliker 1986). They were written mostly in the Glagolitic, Latin and Croatian Cyrillic script and often supplemented by several authors. The oldest Croatian books of folk recipes date from the 14th and 15th centuries and contain various mystical and religious records for the treatment and prevention of diseases. Books of folk recipes are usually named after the compiler, transcriber or place where they were written or found (Dürriegl and Fatović-Ferenčić 2009).

Karlobag books of folk recipes

The first Karlobag (*Pribimnić's*) book of folk recipes from 1603 was written in Karlobag, on 16 pages in Latin handwriting and contains 106 simple instructions for the treatment of humans and animals. The writer of this book of folk recipes is known, so it was named *Pribimnić's book of folk recipes* after him. Chronologically, this is the third oldest preserved book of folk recipes in Croatia, and its value is in the fact that most recipes in it appear for the first time. (Derossi et al. 1984). In *The first Karlobag book of folk recipes* predominates empirical medicine based on recipes involving medicinal plants (Poljak 2009). Most of these plants find similar use in Dioscorides' work. One of the recipes describes the use of sage (*Salvia officinalis* L.) to treat dysentery: *To treat dysentery, take sage juice and drink it with white wine – it is a medicine* (Poljak 2009, p. 82). A similar recipe for the use of sage is found in Dioscorides where it is used as a diuretic, abortifacient, to treat cough, to treat ulcers, but also for painful spleen and dysentery: *Taken as a drink with white wine it cures a painful spleen and dysentery* (Dioscorides (tr. Osbaldeston) 2000, p. 408). In modern phytotherapy, sage leaf is used for rinsing and gargling for the treatment of inflammations of mouth and pharyngeal mucosa, for the treatment of dyspeptic complaints and as an antihydrotic (Schaffner et al. 1999). In this book of folk recipes we also find recipes that use animals, their organs and secretions for healing purposes, which was common in folk medicine at the time. For example, for the treatment of eye diseases, the ashes of young swallows are mixed with honey and placed on a clean scarf to cover sore eyes (Poljak 2009, p. 88). We find similarities in Dioscorides' recipe with swallows: *... the ashes of them and of their female parents burnt in a ceramic pot and rubbed on with honey cause sharpness of sight*. (Dioscorides (tr. Osbaldeston) 2000, p. 203). In the

recipe *When a wound cannot heal*, black snail flesh is applied to the wound so it can heal immediately (Poljak 2009, p. 84). In the second book of his *De materia medica* Dioscorides mentions recipe with snail flesh... *pounded into small pieces and applied as a poultice with myrrh and frankincense heals wounds, especially those around the tendons* (Dioscorides (tr. Osbaldeston) 2000, p. 187). Both recipes have the same indication. Drug dosage in the recipes of *The first Karlobag book of folk recipes* is greatly simplified (only small pot, one bowl and as much as one can take with three fingers). Such a simple approach is typical of folk medicine.

The second Karlobag book of folk recipes was written at the beginning of the 18th century (1707) in Latin handwriting, on 18 pages following *The first Karlobag book of folk recipes*, and its author is not known. It is one of the first twenty such books of folk recipes preserved in Croatia, which adds value to this book. *The second Karlobag book of folk recipes* contains 56 recipes, 46 of which are for human treatment, while 10 recipes are for veterinary use. Unlike in *The first Karlobag book of folk recipes*, remedies of animal origin predominate in this book of folk recipes but the use of this recipes is different from that in Dioscorides' work, which suggests that the recipes were taken from other sources. Recipes with medicinal plants are less represented. Nettle (*Urtica dioica* L.) is listed in this book of folk recipes as a cough remedy: *A cough remedy. Good for a cough. Cook nettle seeds with honey and drink that soup as warm as possible before going to bed – the cough will go away.* (Poljak 2009, p. 101). We find similarities in Dioscorides' nettle recipes: ... *Licked in with honey it helps asthma, pleurisy and pneumonia, and fetches up stuff out of the chest.* (Dioscorides (tr. Osbaldeston) 2000, p. 644). Nettle herba is used as a herbal diuretic in modern phytotherapy, and has anti-inflammatory and anti-rheumatic effects (Wichtl 2001). Rosemary (*Rosmarinus officinalis* L.) has a very important place in recipes with medicinal plants and had become a universal remedy for all diseases: *The healing power of rosemary. Tie its flower in a clean handkerchief, put the flower in a jug of fresh water, leave it until midnight, then drain it and drink that water on an empty stomach. It is a remedy for every disease* (Poljak 2009, p. 102).

Dioscorides writes for the rosemary the following: ... *It is warming and cures jaundice. It is boiled in water and given to drink before exercises, and then he who exercises bathes and is drenched with wine. It is also mixed with remedies for the removal of fatigue...* (Dioscorides (tr. Osbaldeston) 2000, p. 467). Today we know that rosemary leaf is used as a carminative, stimulates the secretion of gastric juices, improves blood circulation and helps treat rheumatic diseases (Willfort 1978).

Conclusion

Croatian ethnomedicine has been preserved in books of folk recipes called *ljekaruše*. They have simple instructions for the preparation of medicines and their use in the treatment of humans and animals. The oldest known Croatian books of folk recipes date back to the 14th and 15th centuries. Many herbal and animal drugs from Dioscorides' *De materia medica* found similar use in the recipes of two published and described Croatian books of folk recipes from the 17th and 18th centuries. Many of herbal drugs mentioned in Dioscorides' work, as well as Croatian books of folk recipes, are used in modern phytotherapy. Due to the linguistic and cultural specificities of these books, they should be studied multidisciplinary, including medicinal and pharmaceutical historians, philologists and ethnologists.

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