

Abstract

CHARLES UNIVERSITY

THE FACULTY OF PHARMACY IN HRADEC KRÁLOVÉ

DEPARTMENT OF PHARMACOGNOSY AND PHARMACEUTICAL BOTANY

Title of the diploma thesis: CONSTITUENTS OF ROSEMARY AND THEIR BIOLOGICAL EFFECTS

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Rosemary (*Rosmarinus officinalis* L.) belongs to the Lamiaceae family. It is a bushy, evergreen perennial plant coming from the Mediterranean. Two pharmacopoeia herbal substances are used from this plant – leaves and essential oil.

Rosemary has a wide range of uses. It is mainly used as a spice in the kitchen. Due to its antioxidant effects, it is used as a food preservative. It is also added to various cosmetic products such as soaps, creams, shampoos and perfumes. Rosemary and its components (carnosol, carnosic acid and rosmarinic acid and others) show many effects, which include analgesic, antioxidant, antiinflammatory, anticancer, antirheumatic, spasmolytic, antihepatotoxic, carminative, atherosclerotic, choloretic, antidepressant effects and others. It also works against bacteria and viruses. Rosemary is widely used as a traditional medicine, so it is included in the EMA monograph.

Extract of rosemary or substances isolated from it have been tested in many *in vitro* and *in vivo* studies. Essential oil is widely analyzed using the GC/MS method.

The diploma thesis is a literature review that deals with constituents of rosemary and their pharmacological effects having a beneficial effect on the human organism.

Keywords: *Rosmarinus officinalis*, constituents, biological effects