Tannoun Zaid Abdulrahim, Dovgal Ye.A. IDENTIFICATION OF HYDROXYCINNAMIC ACIDS IN CATTAIL LEAVES

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Introduction. Cattail (*Typha angustifolia* L., *Typhaceae*) is a perennial commonly growing on wetlands in the northern hemisphere. It is traditionally used in folk medicine as bactericidal, styptic and wound healing agent, some parts are even considered edible. The pollen of the plant has been extensively studied, and it was determined to possess immune suppressive, antiplatelet, antimicrobial, antisclerotic effects. Some biologically active compounds also show similar properties. In particular, hydroxycinnamic acids and their derivatives are known for their antimicrobial, antitumour, anti-inflammatory, antiplatelet properties. Thus, the study of hydroxycinnamic acids in cattail leaves is of great interest since they can be responsible for the pharmacological activity of the plant material studied.

Aim: identification of hydroxycinnamic acids in cattail leaves.

Materials and methods. Cattail leaves collected in July 2016 in Kharkiv region (Ukraine) were used as plant material. Paper chromatography with water extract of the plant material was used. 15 % acetic acid was chosen as the solvent system. The spots were identified under the UV-light by the blue fluorescence which was intensified with ammonia vapor.

Results and discussion. The experiment carried out allowed identifying at least two hydroxycinnamic acids. Spots that corresponded with chlorogenic acid standard had blue fluorescence, and those that corresponded with caffeic acid standard – blue and violet fluorescence. In addition, there was one spot with violet fluorescence related to hydroxycinnamic acids as may be supposed. As a result of the chromatographic analysis the presence of caffeic and chlorogenic acids was confirmed in the cattail leaves.

Conclusions. The results obtained may be used for cattail leaves standardization.