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APPLICATION OF SPECTROPHOTOMETRIC METHODS IN PHARMACY

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Relevance: The use of medicinal plants in combination with synthetic drugs is common. These combinations can affect the effectiveness and properties of the drugs. Studying the interaction between camel thorn, which grows in Kazakhstan, and medicines is important for improving the safety and efficacy of therapy. Biophysical methods allow us to deepen our theoretical knowledge, improve the learning process, and form an understanding of modern research methods among future professionals.

The purpose of the study. The study of the interaction between camel thorn and medicinal products using the spectrophotometric method in the field of pharmacy.

Materials and methods. The paper uses a theoretical analysis of the biophysical properties of substances, and information about the composition of camel thorn and its possible interaction with drugs is considered. Spectrophotometry is described as a method to detect changes in absorption spectra and can be used to judge the presence or absence of interaction between substances.

Results. Camel thorn compounds have the ability to alter the absorption spectra of medicinal substances, indicating a possible interaction between them at the molecular level. These interactions may take the form of complexation, formation of intermolecular bonds, or changes in the energy states of the molecules. This phenomenon suggests that herbal components can influence the activity of medications.

The results also indicate that the intensity of the spectra may depend on the concentration and composition of the extract, confirming its ability to interact with various groups of medicinal substances. This suggests the potential use of spectrophotometry as a tool for predicting the compatibility of herbal and synthetic drugs.

Conclusion. Biophysical methods provide a wide range of techniques for studying processes within living systems and resolving pharmaceutical science issues. Through these methods, it is possible to gain a better understanding of the interaction between substances. Camel thorns, for example, can affect the effects of drugs on a molecular level. Spectrophotometry can be used to identify these interactions and assess their potential impact on treatment effectiveness, highlighting the need for further theoretical and empirical research.