

From the data table.2 it follows that the ratio « $C_a : C_b$ » in the investigated extracts in was the smallest in the Vitebsk region, while the corresponding value « $(C_{a+b}) : C_c$ » was characterized by the maximum value, which confirms that the plants of Vitebsk are exposed to the greatest negative anthropogenic impact in comparison with Braslav and Glubokoe districts.

Conclusion. Thus, based on the analysis of the results obtained, it can be concluded that the state of the pigment complex (the content of chlorophyll *a* and *b*, carotenoids) in extracts of dandelion leaves can be a marker for assessing the degree of anthropogenic impact on the ecosystem.

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THE ECOLOGICAL FEATURES OF APPLYING X-RAY CONTRAST PREPARATIONS IN RADIATION DIAGNOSTICS

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Currently, various X-ray techniques are used to diagnose many diseases. The contribution of modern methods of radiation diagnostics to medical practice is very great. Diagnosis of most diseases is based on methods of medical imaging. The most notable advances in the field of radiation diagnostics in recent years are the development of endovascular surgery and digital radiology [1]. The approaches to the use of X-ray research methods with the use of X-ray contrast agents have largely changed, taking into account the occurrence of side reactions and complications. Despite the recent emergence of new less toxic drugs the problem of the safety of their use remains very urgent [2].

Purpose of the study: to determine the incidence of contrast-induced complications and allergic reactions in patients with different diagnoses. Evaluate risk factors for severe side effects. Suggest methods to prevent them.

Materials and methods. The objects of the study were "Medical records of an inpatient" form N 003 / y-07 and recorded information on the occurrence of

side effects and allergic reactions that arose immediately as a result of X-ray contrast methods of research or with delayed consequences. An analysis of these risk factors for each age group of patients was carried out with subsequent statistical processing of the results. The assessment of indications for the use of X-ray diagnostics with contrast enhancement for patients with aggravated hereditary or allergic anamnesis was carried out.

Findings and their discussion. The study was conducted among patients with a therapeutic and surgical profile at Minsk Regional Clinical Hospital for the period from 01.07.2018 to 31.12.2019. Data from 210 patients from 13 to 81 years old were included. There are 98 women and 188 men. Patients were treated with various diseases so most of them had different risk factors for the development of contrast-induced complications, such as a history of arterial hypertension (49 patients), type 2 diabetes mellitus (23 patients) as well as kidney and urinary tract diseases pathways (57 patients), 14 patients in the past had an allergic reaction to anesthetics (novocaine). In 68 out of 210 patients, objective risk factors for adverse reactions to contrast agents were identified. However, the diagnostic efficiency of studies with radiopaque contrast (pyelography, excretory urography, cystography, myelography) was in the first place, despite the possible risks. Of 210 patients who underwent X-ray contrast, only 7 had minor allergic reactions in the form of urticaria, hyperemia and itching of the skin, which were successfully stopped after appropriate therapy. However, among the group of patients with risk factors, two developed contrast-induced nephropathy (pyelonephritis, glomerulonephritis), which increased their treatment period and hospital stay.

Conclusion. According to preliminary data out of 210 patients who used X-ray contrast methods of research, only 9 patients developed side effects and allergic reactions, despite the fact that patients with objective risk factors for the occurrence of contrast-induced complications were significantly higher (68 people). The main risk factors for the development of side effects were: a history of chronic kidney disease and, also, a large amount of injected ionic X-ray contrast agent. When using X-ray contrast agents, it is necessary to take into account the negative features of each contrast agent, its dose and methods of drug administration.

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