

Conclusions. Amiodarone-induced pulmonary toxicity should be considered in patients with persistent respiratory symptoms and progressive radiographic changes during antiarrhythmic therapy. Prompt discontinuation and corticosteroid treatment significantly improve outcomes. Close collaboration between cardiologists and pulmonologists is crucial for early diagnosis, individualized management, and prevention of long-term pulmonary sequelae.

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CRISPR: A MODERN TOOL FOR TREATING CANCER

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Relevance. Cancer is fundamentally a genetic disease characterized by the accumulation of somatic mutations, oncogenes activation, and tumour suppressor genes inactivation. Therefore, CRISPR technology is ideally suited for studying and treating cancer.

Target. To evaluate experimental strategies, therapeutic outcomes, safety considerations in preclinical and clinical studies with usage of CRISPR techniques.

Research methods. The study involved a comprehensive review and analysis of recent scientific articles focusing on CRISPR-based applications in cancer therapy.

Results and their discussion. Researchers use CRISPR to identify genes that promote tumor growth and to understand how cancer cells resist drugs, which has led to the discovery of many new potential drug targets [1].

CRISPR is being applied to modify immune cells for cancer immunotherapy. By editing T cells or natural killer cells, scientists can enhance their ability to recognize and destroy tumours. One of the most exciting applications of CRISPR is improving CART cell therapy. In which a patient's T cells are engineered to attack cancer cells. CRISPR can be used to remove inhibitory receptors such as PD1 or to insert new receptors that improve tumour targeting [2]. Researchers are testing CRISPR-modified CART cells in clinical trials for leukaemia, lymphoma, and solid tumours. These advances demonstrate how CRISPR can enhance existing therapies and create entirely new treatment strategies for cancer patients.

The primary therapeutic strategies is direct inactivation of oncogenes that drive tumour growth. CRISPR-based gene editing enables targeted disruption of mutated or amplified oncogenes responsible for uncontrolled proliferation [3]. Studies

demonstrated that inactivation of MYC oncogene reduced tumour growth in animal lymphoma models. These findings provide experimental evidence that CRISPR-mediated oncogene disruption can suppress tumour progression *in vivo* [3]. CRISPR technology has also been applied to correct inherited mutations linked to cancer. Studies reported the correction of BRCA1 mutations in human cells, demonstrating feasibility for hereditary breast and ovarian cancer therapy.

CRISPR based gene editing has the potential to cause mutations in the genome by targeting unintended genes, this is particularly concerning in cancer therapy, where the goal is to target specific genetic mutations that drive tumor growth [3].

Conclusions. The prospective future of CRISPR in cancer treatment is exceptionally promising. With ongoing advancements in research surmounting existing barriers, there is tangible possibility for the creation of effective, individualized and minimally invasive treatments for cancer.

LITERATURE

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A CLINICAL CASE OF SYSTEMIC SCLEROSIS ASSOCIATED WITH PRIMARY BILIARY CIRRHOSIS (REYNOLDS SYNDROME)

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Relevance. Reynolds syndrome is a rare overlap syndrome combining systemic scleroderma (SSc) and primary biliary cirrhosis (PBC). The polymorphism of the clinical presentation complicates diagnosis and therapeutic decision-making. This condition has been reported in only a limited number of cases in literature [1]. PBC within the syndrome can be asymptomatic or manifest as cholestasis, pruritus, jaundice, xanthomas [2].

Target. To describe the characteristics of a rare autoimmune disease – Reynolds syndrome.

Research methods. Literature review; clinical, laboratory and instrumental examinations (barium esophagram, CT, ultrasound, ECG, echocardiography, EGD).

Results and their discussion. A 74-year-old female patient. Since 2003: Raynaud's syndrome, skin thickening of the hands, arthralgia, dysphagia, «pursestring