

СЕКЦИЯ 15
«ОБЩАЯ И КЛИНИЧЕСКАЯ ФАРМАКОЛОГИЯ»

UDC 616.72-002.2.15.065

**USE OF DISEASE-MODIFYING ANTIRHEUMATIC DRUGS
IN CONTAMINANT CHRONIC RENAL FAILURE**

Savarina Valeria Alexandrovna, Maher Fayad

Scientific adviser: PhD, prof. E. I. Mikhailova

Educational Institution
«Gomel State Medical University»
Gomel, Republic of Belarus

Introduction

Systemic diseases of the connective tissue are very often accompanied by kidney damage. It complicates the treatment of these diseases, since the basic disease-modifying antirheumatic drugs are potentially nephrotoxic. Thus, the question arises about the effective and safe treatment of these patients.

Aim

Assess nephrotoxicity and the renal safety of administering basic disease-modifying anti-rheumatic drugs for rheumatoid arthritis during chronic kidney disease.

Material and methods

English-language scientific publications on this topic over the past 20 years were analyzed.

Results

The potential nephrotoxicity of antirheumatic drugs should be carefully considered when treating patients with rheumatoid arthritis and other rheumatic diseases. Methotrexate does not cause acute nephrotoxicity with low doses used in rheumatology, but it can cause a progressive decline in renal function, and in patients on dialysis, it has a danger of bone marrow toxicity because of the risk of accumulation [1–3]. The cyclosporine toxicity is known and documented, which manifests itself in the form of acute and reversible kidney damage, while the prevention of chronic damage requires careful laboratory monitoring and adjustment of the pharmacological dose [4]. Leflunomide is administered for patients with «moderate or severe» renal failure, because there is no sufficient clinical experience of treatment of such patients and patients with severe hypoproteinemia during nephrotic syndrome [5].

Renal toxicity is not reported for hydroxychloroquine, but frequent fundus examinations due to the risk of increased retinal toxicity in renal failure and dose reduction if the GFR is severely impaired are recommended [6]. On the basis of several cases of renal failure from sulfasalazine given in the literature, manufacturers contraindicate its use in severe renal failure [7]. Biological DMARDs can lead to progressing drug-induced autoimmune nephropathy [8, 9].

Conclusion

Thus, it is impossible to say unequivocally that there are safe basic disease-modifying anti-rheumatic drugs for rheumatoid arthritis during chronic kidney disease. However, such diseases somehow require treatment, so the prescription of these drugs is left to the discretion of the attending physician and requires, in any case, careful monitoring of renal function.

LITERATURE

1. *Kremer, J. M.* Pharmacokinetics and renal function in patients with rheumatoid arthritis receiving a standard dose of oral weekly methotrexate: association with significant decreases in creatinine clearance and renal clearance of the drug after 6 months of therapy / J. M. Kremer, G. F. Pettillo, R. A. Hamilton // *J. Rheumatol.* [Electronic resource]. — 1995. — № 1. — Mode of access: <https://www.ncbi.nlm.nih.gov/pubmed/7699678>. — Date of access: 10.03.2019.
2. Is low-dose methotrexate nephrotoxic? Case report and review of the literature / J. Izzedine [et al.] // *Clin. Nephrol.* [Electronic resource]. — 2005. — № 4. — Mode of access: <https://www.ncbi.nlm.nih.gov/pubmed/16240905>. — Date of access: 10.03.2019.
3. Kidney disease in RA patients: prevalence and implication on RA-related drugs management: the MA-TRIX study / S. Karie [et al.]. // *Rheumatology* [Electronic resource]. — 2008. — № 8. — Mode of access: <https://academic.oup.com/rheumatology/article/47/8/1259/1787157?searchresult=1>. — Date of access: 12.03.2019.
4. International Kidney Biopsy Registry of Cyclosporin(Sandimmune) in Autoimmune Diseases. Renal morphology after cyclosporin A therapy in rheumatoid arthritis patients / S. Sund [et al.] // *Br. J. Rheumatol.* [Electronic resource]. — 1994. — № 41. — Mode of access: <https://www.ncbi.nlm.nih.gov/pubmed/8137567>. — Date of access: 09.03.2019.
5. Effect of hemodialysis on leflunomide plasma concentrations / J. M. Beaman [et al.] // *The Annals of pharmacotherapy* [Electronic resource]. — 2002. — № 1. — Mode of access: <https://journals.sagepub.com/doi/abs/10.1345/aph.1A127>. — Date of access: 09.03.2019.
6. Revised recommendations on screening for chloroquine and hydroxychloroquine retinopathy / M. F. Marmor [et al.]. // *Ophthalmology* [Electronic resource]. — 2011. — № 2. — Mode of access: [https://www.aaojournal.org/article/S0161-6420\(10\)01209-1/fulltext](https://www.aaojournal.org/article/S0161-6420(10)01209-1/fulltext). — Date of access: 07.03.2019.
7. *Kronbichler, A.* Renal involvement in autoimmune connective tissue diseases / A. Kronbichler, G. Mayer // *BMC medicine* [Electronic resource]. — 2013. — № 4. — Mode of access: <https://bmcmmedicine.biomedcentral.com/articles/10.1186/1741-7015-11-95>. — Date of access: 07.03.2019.
8. Revised recommendations on screening for chloroquine and hydroxychloroquine retinopathy / M. B. Stokes [et al.] // *European Renal Association* [Electronic resource]. — 2005. — Mode of access: [https://www.aaojournal.org/article/S0161-6420\(10\)01209-1/fulltext](https://www.aaojournal.org/article/S0161-6420(10)01209-1/fulltext). — Date of access: 07.03.2019.
9. Biologics-induced autoimmune renal disorders in chronic inflammatory rheumatic diseases: systematic literature review and analysis of a monocentric cohort / M. Piga [et al.]. // *Autoimmunity reviews* [Electronic resource]. — 2011. — № 2. — Mode of access: <https://www.sciencedirect.com/science/article/abs/pii/S1568997214001244?via%3Dihub>. — Date of access: 07.03.2019.

УДК 615.213:616.511.4-039.3

**GENETIC FEATURES OF THE DEVELOPMENT
OF STEVENS — JOHNSON SYNDROME, INDUCED BY CARBAMAZEPINE**

Khiliuta T. P., Wijesundara Y.

Scientific adviser: PhD, prof. E. I. Mikhailova

**Educational institution
«Gomel State Medical University»
Gomel, Republic of Belarus**

Introduction

Carbamazepine is the generic name of a widely used type of seizure medicine. An anti-convulsant used to control grand mal and psychomotor or focal seizures. Indicated for pain associated with trigeminal neuralgia; beneficial results have also been reported in glossopharyngeal neuralgia. Carbamazepine is not a simple analgesic and should not be used for the relief of trivial aches or pains.

One rare side effect of Carbamazepine is a serious and potentially fatal skin reaction called Stevens — Johnson syndrome and/or toxic epidermal necrolysis. Stevens — Johnson syndrome is a type IV (subtype C) hypersensitivity reaction that typically involves the skin and the mucous membranes. This serious skin rash usually occurs within the first few months of taking Carbamazepine. People of Asian ancestry who carry a certain gene called the HLA-