in women receiving HAART for more than one year, in comparison with those who did not receive treatment or less of its duration.

5'-Norcarbocyclic Nucleoside Derivatives: Synthesis and Spectrum of Biological Activity

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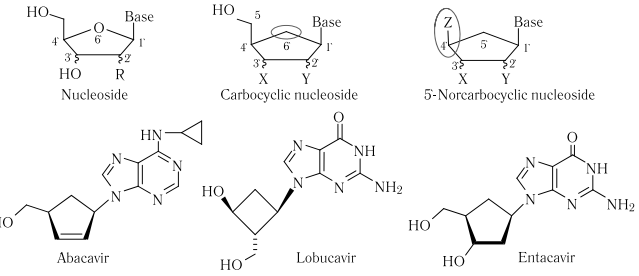
In the last several decades, AIDS has become one of the major threats to human health. Many years of research efforts resulted in a variety of substances with an anti — HIV activity. Currently, the best treatment for HIV is highly active antiretroviral therapy (HAART), which includes several drugs with different mechanisms of action. Among clinically approved anti-HIV therapeutics more then 25 are modified nucleosides.

A class of nucleoside analogues, known as carbocyclic nucleosides, where a furanose oxygen in the sugar moiety replaced with a methylene group, have provided a wealth of drug candidates. Potent anti-HIV agent Abacavir, anti-HSV and anti-HBV drugs Lobucavir and Entecavir are important members of this class of compound in the field of medicinal chemistry.

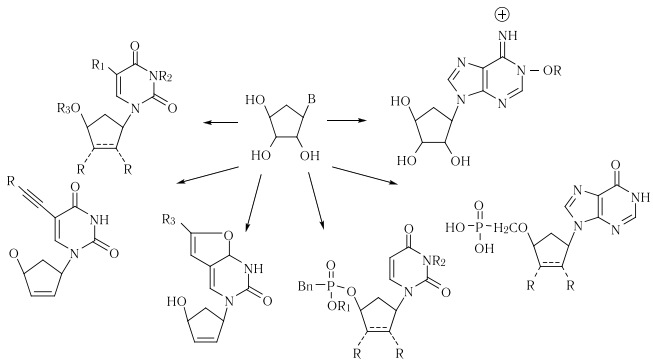
The field of our interests is a group of carbocyclic nucleosides — 5'-norcarbocycles. This type of compounds possesses interesting characteristics due to their increased stability toward cellular enzymes and lack of 5'-phosphorylation. This latter feature is responsible for a decrease in cytotoxicity of 5'-norcarbocycles.



Recent years we have designed and synthesized more then 80 new 5'-norcarbocyclic nucleosides belong to different groups, modified on heterocyclic base and/or carbocyclic fragment.

Purine-containing derivatives, being inhibitors of SAH-hydrolase, demonstrate wide spectrum of antiviral activity.

Pyrimidine-bearing compounds of this class act as non-nucleoside inhibitors of HIV reverse transcriptase; can suppress growth of *M. Tuberculosis* (including multi drug resistance strain). We also have preliminary results that 5'-norcarbocyclic nucleosides possess antiproliferative activity.



Hence 5'-norcarbocyclic nucleosides are very promising in search of new chemotherapeutic agents against HIV and opportunistic infections which are major cause of morbidity and mortality of AIDS patients.

Kisk of overdose and HIV progression in opioid dependent individuals receiving antiretroviral therapy and preventive naltrexone treatment

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Introduction: Drug overdose is one of common cause of death among people living with HIV and the leading cause of death for people who inject drugs. It's well known that detoxification and relief of opioid withdrawal syndrome increase the chance of opioid overdose. It happens due to the loss of opioid tolerance and use of habitual high drug dose if relapse occurs. HIV disease progression can lead to cognitive deficit and by that also provoke overdose. Our study is aimed to evaluate the relationship of HIV disease progression and overdose frequency among opioid dependent patients receiving antiretroviral treatment and completed 12 months course of naltrexone pharmacotherapy.

Methods: we plan to enroll 200 HIV-positive opioid dependent patients who get antiretroviral treatment (ART) and completed 12 months course of oral or implantable naltrexone during their participation in the HAART study («Adherence to HIV Therapy in Heroin Addicts: Oral vs. Extended Release Naltrexone»). Patients will complete interview in12 months after enrollment and completion of naltrexone treatment. The interview contains questions about overdoses, adherence to ART, narcology care, symptoms of anxiety and depression, HIV stigma. For assessment of HIV disease progression, we are going to draw blood for CD4 count and viral load. We plan to do the participants' medical charts review to get additional information about ART. The primary outcomes are opioid overdoses, viral load, CD4 count, ART adherence.

Preliminary results: the proportion of men in the study was 68%. Mean age was (M±SD) 34,2±4,2 years, mean