

Choice of substitution therapy in HIV positive opiate addicts

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Abstract – Croatia is a country that, despite the »war« epidemic of opiate addiction, has continuously had a very low incidence of the disease and the proportion of seropositive iv. opiate addicts is very low and has shown a stable trend (0.5% in 2009 and 2010). N.N. (30) was raised in an urban dysfunctional family. He has been an intravenous heroin addict since he was 16. Before hospital admission, he was on maintenance therapy with methadone. HIV and hepatitis C infection were diagnosed one year ago. The patient was referred for hospital treatment due to the indicated transfer to buprenorphine therapy. When applying the transfer from high methadone doses to buprenorphine there is a risk of severe withdrawal syndrome. In order to ensure and facilitate the transfer, a standardized method was developed at the Department: it shortens the time and reduces the transfer risk from high methadone doses to buprenorphine. The transfer from methadone to buprenorphine is indicated in HIV – positive opiate addicts because of significantly less adverse drug interactions in the case of antiviral therapy implementation.

Key words: antiviral therapy, buprenorphine substitution, HIV positive opiate addicts

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EPIDEMIOLOGY

Epidemiological data point to the fact that from 1985 to 2010 out of 862 registered persons diagnosed with HIV infection in Croatia, 325 developed AIDS. The annual number of new AIDS cases is still less than 4 per million in the total population.¹ Therefore, Croatia is a country that, despite the »war« epidemic of opiate addiction, has continuously had a very low incidence of the disease and the proportion of seropositive iv. opiate addicts is very low and has shown a stable trend (0.5% in 2006-2011; HCV 40.5%, HBV 7.3% in 2011 –less than previous years). The low percentage of infected intravenous drug users is mostly due to good medical treatment of addicts and other prevention measures implemented continuously since 1986.^{2,5}

ANAMNESIS

N.N. (30) was raised in an urban dysfunctional family. He had a liberal education, and the mother abused alcohol. From early adolescence he has manifested behavioral problems and experimented with different drugs. He has been an intravenous heroin addict since he was 16, and he has been coming to the Centre for treatment and prevention of addiction since 2000, without achieving significant periods of abstinence from opiates. Before hospital admission, he was on maintenance therapy with methadone, with a daily dose of 100 mg.

He is inclined to promiscuous behavior and is convinced that his girlfriend infected him with HIV by sharing the injecting equipment and having unprotected sex. A year ago HIV infection and hepatitis C were discovered after testing at the Centre for treatment and addiction prevention.

TRANSFER FROM METHADONE TO BUPRENORPHINE

The patient was referred for hospital treatment from an authorized Centre for prevention and treatment of addiction due to the indicated transfer to buprenorphine therapy. When applying the transfer from high methadone doses to buprenorphine, there is a risk of severe withdrawal syndrome, which can consequently lead to the abandoning of the treatment process. In order to ensure and facilitate the transfer, a standardized method was developed at the Department: it shortens the time and reduces the transfer risk from high methadone doses to buprenorphine.³ Therefore, on

the first day of hospital admission, we discontinued the use of methadone and prevented the withdrawal syndrome by introducing SR morphine sulfate, 200% higher daily than methadone dose. After one week and after achieving the elimination of methadone from his body, the transfer to buprenorphine was carried out without difficulties, with a daily dose of 16 mg.³

CHOICE OF SUBSTITUTION THERAPY

The transfer from methadone to buprenorphine is indicated in HIV – positive opiate addicts because of significantly less adverse drug interactions in the case of antiviral therapy implementation. Most antiviral drugs are inducers of methadone metabolism and therefore may produce withdrawal symptoms that may necessitate dose increases of methadone (e.g. *abacavir*, *amprenavir*, *lopinavir*, *darunavir*, *nevirapin*). Other antiviral drugs (e.g. *atazanavir*, *delavirdin*, *indinavir*) inhibit methadone metabolism and may cause the serum increase of methadone levels which has been linked to QT interval prolongation and cardiac arrhythmia.

Concomitant use of methadone can result in reduction of antivirals in serum and loss of efficiency (*didanosin*, *stavudin*, *atazanavir*) or may inhibit metabolism of antivirals such as *zidovudine* and increase their serum levels. *Amantadine* and *tenofovir* appears to be well tolerated in methadone maintained patients. Most antiviral drugs are well tolerated in combination with buprenorphine. Also buprenorphine maintenance treatment may improve adherence to highly active antiviral therapy. Clinically non significant QT prolongation has been detected in combination with *delavirdine* and *ritonavir*. An increase of buprenorphine serum levels is detected in combination with *atazanavir*, *delavirdin*, *saquinavir* and *indinavir*.⁴

CONCLUSION

When the substitution therapy with opiate agonists is indicated in the treatment of the opiate addiction, buprenorphine is a therapy of choice in HIV positive opiate addicts at the time of antiviral therapy implementation.

IZBOR SUBSTITUCIJSKE TERAPIJE U HIV POZITIVNOG OPIJATSKOG OVISNIKA

Sažetak – Unatoč porastu broja novootkrivenih slučajeva HIV infekcije te porasta broja novooboljelih od AIDS-a u svijetu, Hrvatska je s ukupno 862 registrirane osobe s HIV infekcijom i godišnjim brojem novooboljelih od AIDS-a manjim od 4 na milijun stanovnika još uvijek zemlja s vrlo niskom razinom učestalosti te bolesti. Podaci o rezultatima testiranja na hepatitis B, C i HIV u Hrvatskoj ukazuju da je udio HIV seropozitivnih opijatskih ovisnika već duži niz godina niskih vrijednosti i stabilnog trenda. Nizak postotak zaraženih intravenskih ovisnika virusom HIV-a možemo zahvaliti kvalitetnom radu sustava za medicinsko liječenje

ovisnika. Pacijent N.N. je upućen na bolničko liječenje iz jednog Centra za prevenciju i liječenje ovisnosti radi indiciranog transfera s metadonske na buprenorfinsku terapiju. Radi lakšeg transfera, standardiziranom metodom, pacijentu je ukinuta metadonska terapija i do eliminacije metadona uvedena terapija morfij-sulfatom, po čemu je postupak proveden uredno do stabilizacije uz buprenorfinsku terapiju. Transfer sa metadonske na buprenorfinsku terapiju je izrazito bitan kod HIV pozitivnih pacijenata zbog interakcija lijekova i boljih rezultata liječenja prilikom provođenja antivirusne terapije u HIV pozitivnih opijatskih ovisnika.

Ključne riječi: antivirusna terapija, supstitucijska terapija buprenorfinom, HIV pozitivni opijatski ovisnici.

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