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EPIDEMIOLOGY OF SOME KEY FACTORS RISK OF IRON DEFICIENCY IN DRUG USERS

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SUMMARY

articles by B.U. Usmonov et al. "Epidemiology of some major risk factors for iron deficiency in drug addicts" To the greatest extent, the relative risk of IDD development in drug addicted populations occurs with alimentary risk factors, 2 times less for epidemiological factors and 6 times less for comparatively alimentary factors in the presence of associated pathological conditions.

KEYWORDS: Iron deficiency animia, epidemiology, risk factors, diagnosis, prevention.

INTRODUCTION

Nowadays, the majority of researchers from various countries, including experts explain the incidence of CND based on the "concept of risk factors" RF - these are behavioral characteristics or biological parameters of the human body that are connected with an increased probable (risk) of developing CND or the continuum from them [Glazunov IS, 2000].

A number of epidemiological studies have shown that epidemiological RFs such as ATh, HCS, smoking explain ~ 50% of interpopulation variations in mortality from CVD.[1,2,3,4,7] Epidemiological studies carried out in various countries of the world made it possible to assess the value of RF for the mass prevention of chronic gastrointestinal diseases, mainly among non-addicted populations.[5,6,8] As for the drug addicted population, epidemiological studies have practically not been carried out, especially in relation to RF of iron deficiency states.

Therefore, the next in our work was to study the prevalence of the main risk factors for IDS among the drug addicted population.

MATERIALS AND RESEARCH METHODS

In a single-stage epidemiological study, a total of 589 people (583 men and 6 women drug addicts) aged 15-49 years were examined. A complex method of population selection was used, combining random and continuous sampling. The sampling sources were lists of drug addicted populations assigned to the service areas of the city Narcological dispensary and the regional psychiatric hospital.

Criteria for identifying and assessing the main risk factors for IDS:
When assessing the consumption of alcoholic beverages (in terms of pure ethanol), the following mass (weight) concentrations of ethanol were used: for beer - 0.04 g ethanol / ml, for dry wine (champagne) - 0.0927 g ethanol / ml of drink, for fortified wine - 0.1227 g ethanol / ml drink, for vodka / cognac - 0.3227 g ethanol / ml drink. The criterion for excess alcohol consumption was the consumption of more than 20 g of pure alcohol per day.

- Burdened heredity - was recognized if parents or blood relatives had hematological diseases;
- The dietary habits of the population (calculation of the consumption of fruits and vegetables) were studied as follows: for each respondent, the average consumption (M) of fruits and the average consumption of vegetables (grams per day) were calculated separately according to special formulas: 1) for drug addicts who consume the product daily: M = grams per admission X frequency of admission per day; 2) for drug addicts who consume the product several times a week /7; 3) for drug addicts who consume the product several times a month: M = grams per intake X frequency of intake per month / 30; 4) for

drug addicts who consume the product several times a month: M = grams per intake X frequency of intake per month / 30; 4) for drug addicts who consume the product several times a year. M = grams per admission X admission rate per year / 365.

- The criterion for low consumption of vegetables and fruits was taken as their consumption on average less than 400g per day.

- Low physical activity was recorded if the respondent-drug addict answered that he mostly sat at work or did not work, while walking less than 30 minutes a day and did not engage in physical activity at all in his free time from work.

The diagnosis of IDS was established on the basis of clinical data, typical sideropenic and trophic disorders, decreased hemoglobin, color index, serum iron and ferritin levels.

Statistical processing of the obtained results was carried out using the standard Microsoft EXCEL 97 software package. Correlation analysis was used, Cox analysis was used in the version of the SASPROC PHREG procedure, which made it possible to calculate β-coefficients of risk factors (RF), standard error SEβ, Wald £ 2 and 95% DI. The reliability of the differences between the studied indicators was assessed using the Student's test (t): unreliable - P> 0.050, low reliability - P> 0.050, medium - P> 0.01 and high - P> 0.001.

RESULTS AND DISCUSSION

According to the data obtained, 81.7% of drug addicts have DNN and 79.6% have DRN. The prevalence of other alimentary risk factors (AFR) was as follows: overeating - with a frequency of 8.3%, having meal at night - 60.3%, overdrinking storng tea and coffee- 79.1% and overusing non-addicted drugs - with a frequency of 89.3% in the surveyed population of drug addicted population.

Analysis of the frequency of NRF in different age periods showed that the surveyed in all age ranges have a high prevalence of nutritional risk factors for iron deficiency states. The frequency of DNN and DRN in different age ranges was: at 15-19 years old - 72.7% and 100.0% each (P <0.05), at 20-29 years old - 80.0% and 81.9% each (P> 0.05), at 30-39 years old - 83.4% and 76.8% each (P> 0.05) and at 40-49 years old - 83.8% and 78.5% each (P > 0.05). Another PRA - overeating in the group of examined drug addicts aged 15-19 was detected in 18.2%, at 20-29 years - in 6.9%, at 30-39 years - in 8.9% and at 40-49 years - in 8.1%. In other words, the frequency of PEDs is more than 2.6 times higher in 15-19 year old drug addicts compared to those in other age groups (P <0.001).

Studies have also shown that the frequency of "eating at night" in the population of drug addicts is characterized by a relatively high severity. The detection rate of this PRA among the surveyed was: at 15-19 years old - 81.8%, at 20-29 years old - 57.4%, at 30-39 years old - 63.7% (P <0.05) and at 40- 49 years old - 51.4%.

The prevalence of overdrinking strong tea and coffee and overusing non-addicted drugs in different age ranges was respectively: at 15-19 years old - 72.7% and 100.0% each (P <0.05), at 20-29 years old - 76.4% and 89.6 % (P <0.05), at 30-39 years old - 82.9% and 88.6% (P> 0.05), at 40-49 years old - 76.0% and 89.1% each (P <0.05). The revealed differences in different age groups in relation to the overdrinking strong tea and coffee were statistically significant (P <0.05). Among the surveyed, the frequency of overusing non-addicted drugs does not increase with age, but slightly decreases, but this decrease is statistically insignificant (P> 0.05).

It is alarming that unfavorable epidemiological conditions have developed in relation to PRA in the anesthetized population. Considering that PRA are one of the triggering mechanisms of the SID, IDA and IDS, it should be pointed out that in the population of drug addicts against the background of chronic drug addiction there is a high risk of developing IDS and the associated hematological or therapeutic continuum.

We were of great interest to the data on the prevalence of some behavioral epidemiological risk factors for IDS among drug addicted populations.

The data obtained generally indicate a high prevalence of behavioral epidemiological risk factors for IDS (BRF) among the drug addicts population. Thus, various BRF in the surveyed population were identified with the following prevalence: LES - 16.8%, LSS - 33.4%, UFF - 36.5%, LCVF - 32.4%, SRF - 13.7% and AAD - 36, 7%. The prevalence of nose was the lowest in the age groups 20-29 years old (10.4%) and 30-39 years old (12.5%). In the age groups 15-19 years old (81.8%) and 40-49 years old (75.7%), there is a more than sevenfold increase (8 and 7.2 times) in the frequency of NOS (P <0.001).

Our study also analyzed the prevalence of unfavorable social status (USS), unfavorable family factor (UFF), low consumption of vegetables and fruits (LCVF), stress risk factors (SRF) and abuse alcohol drinks (AAD) depending on the age of the surveyed drug addicted population.

It was noted that the prevalence of USS with the age of drug addicts' increases by 69.7% or 3.8 times (P <0.001). In certain age groups, the detection rate of USS was: at 15-19 years old - 27.3%, at 20-29 years old - 24.8%, at 30-39 years old - 33.9% and at 40-49 years old - 94.5 %.

The frequency of detection of UFF and LCVF with age of the population of drug addicts increases by 5 and 5.2 times, respectively (P1 <0.001; P2 <0.001).

Among the younger and older age groups, the prevalence of the noted PRF is recorded at the following levels, respectively: at 15-19 years old - 9.0% and 18.2% each (P <0.01), at 20-29 years old - 30.0% and 22.2% (P <0.05), at 30-39 years old - 45.0% and 34.3% each (P <0.05) and at 40-49 years old - 70.3% and 94 each, 6% (P <0.05).

This fact testifies to the need to improve the methods of primary prevention of IDS among drug addicted populations with an emphasis, among other things, on UFS and LCVF.

According to the data obtained, the frequency of detection of SRF and AAD, depending on the age of drug addicts, increases 6.5 and 5.4 times, respectively (P1 <0.001; P2 <0.001). In different age periods, the prevalence rates of these factors differ significantly and are: in the 15-19 year age range - 9.1 and 18.2% (P <0.01), in 20-29 years - 11.1% and 31, 9% (P <0.01), at 30-39 years old - 10.3% and 34.3% (P <0.01) and at 40-49 years old - 59.5% and 94.6% (P <0.05), respectively.

Thus, we can conclude that in the population of drug addicts, SRF and AAD are significant risk factors in almost all age groups. However, it should be emphasized that the greatest increase in the frequency of SRF is observed after 40 years, and AAD - starting from 15 years of age.

CONCLUSIONS

1. Among the drug addicted population, there is a fairly high prevalence of the main risk factors for IDS and, in general, is: DNN - 81.7%, DNR - 79.6%, overeating - 8.3%, night meal - 60.3%, overdrinking strong tea and coffee - 79 , 1%, overusing non addicted drugs - 89.3%, LES - 16.8%, LSS - 33.4%, UFF - 36.5%, LCVF - 32.4%, SRF - 13.7%, AAD - 36, 7%, PhI - 67.6%, AH - 13.9%, BMI - 5.1%, PMT - 81.5%, NSO - 13.8%, smoking - 64.5%, HCS - 8.3 %, HTG - 7.5%, DLP - 15.4%, HU - 10.5%, CMD - 12.9%, HDF- 33.3%, DP - 28.2%, SD- 89.3% and CD - 68.8%.

2. Monitoring of IDS and the main risk factors using epidemiological screening and their correction using the prevention technologies developed by us is potentially able to prevent in 100% of cases the premature development of the continuum from IDS in drug addicted populations.

Conflict of Interests And Contribution of Authors
The authors declare the absence of obvious and potential conflicts of interest related to the publication of this article and report on the contribution of each author.

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