SEVERITY AND CORRELATES OF LIVER FIBROSIS IN HEPATITIS C-INFECTED PEOPLE WHO INJECT DRUGS AND PATIENTS INFECTED BY OTHER ROUTES

Authors: Papastergiou V[1], Deutsch M[1], Anagnostou O[2], Kourikou A[1], Kranidioti H[1], Papatheodoridis GV[3], Manolakopoulos S[1]

[1] 2nd Academic Department of Internal Medicine, Hippokratio General Hospital, Athens, Greece
[2] Organization Against Drugs (OKANA), Athens, Greece
[3] Academic Department of Gastroentrerology, Laiko General Hospital of Athens, Greece

Background:
People who inject drugs (PWID) are key drivers of hepatitis C virus (HCV) transmission. Using transient elastography, we aimed to compare the stage of the liver disease and its correlates between HCV-infected PWID and non-PWID.

Methods:
Consecutive HCV-viremic patients (n=280; PWID/non-PWID:137/143) undergoing successful liver stiffness measurements (2009-2015) were retrospectively reviewed. Liver stiffness values were stratified according to established cut-offs (7, 9.5, 12 kPa for significant, advanced fibrosis, cirrhosis respectively). Multivariate logistic regression was used to assess predictors of advanced fibrosis.

Results:
PWID were more frequently males (78.8% vs 55.9%), younger (42.7±10.5 vs 50±14.8 years), had a lower mean body mass index (24.9±3.4 vs 26.2±4.3 Kg/m^2) and lower prevalence of diabetes (3.7% vs 11.1%) and arterial hypertension (6.6% vs 21.7%) compared to non-PWID (p<0.05, all comparisons). Excessive alcohol use (>40gr/day; 37.3% vs 19.1%) and history of smoking (85.2% vs 38.5%) were significantly more prevalent among PWID (p=0.0001, both comparisons). Genotype-3 predominated in PWID (48.3%) and genotype-1 in non-PWID (43.7%). HCV-RNA>800.00IU/ml was documented in 58.2 vs 56.3% respectively. Overall, PWID had lower median liver stiffness (7.9kPa (IQR:5.9-11.5) vs 9.9kPa (IQR:6.4-13.1); p=0.049), with significant/advanced fibrosis/cirrhosis being detected in 21.9%/16.8%/19.7% of PWID vs 17.5%/21.7%/30.1% of non-PWID (p=0.07). In the multivariate analyses, older age was independently predictive of advanced fibrosis both in PWID (OR:1.09, 95%CI: 1.03-1.15) and non-PWID (OR:1.05, 95%CI:1-1.10). Male gender (OR:6.32, 95%CI: 1.37-29.26) alcohol use (OR:3.60, 95%CI:1.12-11.49) and smoking (5.16, 95%CI: 1.32-20.05) were predictive only in the PWID group.

Conclusions:
Distinct epidemiological and liver disease features, including predominance of non-advanced fibrosis stages, should be taken into account in designating HCV elimination policies targeting PWID. Smoking and alcohol cessation counseling

is also important, as both appear to be relevant co-factors of liver disease in PWID.