Reviewer's report

Title: Renal AA-amyloidosis in intravenous drug users - A role for HIV-infection?

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Reviewer: Joan Carles Trullas

Reviewer's report:

Jung and colleagues present a retrospective analysis of intravenous drug users (IVDU) that underwent a renal biopsy. The study is well structured and presented but some serious methodological issues and other limitations must be considered.

Methods section

# The analysis is retrospective and this is always an important source of bias that must be considered and mentioned as a limitation of the study

# All patients with ongoing or with a prior history of IVDU were included. How did you identify and select the IVDU from the study period? How did you collect the information regarding drug use (ongoing vs. prior)? Did you review medical records?

# Only patients that underwent renal biopsy were included. Patients with end-stage renal disease (ESRD) without a kidney biopsy were excluded and this may be another important source of bias. In my opinion all patients diagnosed with ESRD (with clinical and/or histological diagnosis) should be included in the analysis. Probably, the decision of performing a kidney biopsy is based on the centers policy, the patient life expectancy, performance status, etc. For this reason, patients with a biopsy-proven diagnosis are not representative of all ESRD-IVDU patients.

# Las paragraph (Statistical methods): continuous variables should be expressed as median and IQR and also range if you want to. When continuous variables are expressed as proportions? This is usually for categorical variables.

Results section

# It would be very interesting to know how many patients with prior or ongoing IVDU were attended in your hospitals during the study period and how many of them had progressive renal failure or proteinuria (you would be able to know the prevalence of chronic kidney disease in this population). Only 24 patients underwent a renal biopsy. The number of patients included in the final analysis is too low and this should be mentioned as a limitation.

# Self reported duration of IVDU was 3-33 years. How did you collect the information? Did you review medical records? In my opinion this information is difficult to collect retrospectively.

# Table 2 is not necessary. Information is clear in the text.
# In my opinion figure 1 and probably figure 2 are not necessary.

# Figure 4: a survival comparison (using the Kaplan-Meier method and the log-rank p value) with patients with other diagnoses it’s highly recommended

# In addition, a new table comparing the characteristics of patients with and without amyloidosis could be useful

Discussion

# The authors compare their findings with another retrospective cohort of 25 HIV-infected patients without a history of IVDU that underwent a kidney biopsy. This comparative analysis was not mentioned in the objectives and methods section of the study. These two groups are probably not properly matched and the conclusions of this comparison must be interpreted cautiously.

# A “limitations” paragraph is highly recommended at the end of the discussion

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests