Risk Factors for IRIS in HIV-Associated Pneumocystis-Pneumonia After ART Initiation

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BACKGROUND: HIV-infected patients with Pneumocystis pneumonia (PCP) due to Pneumocystis jiroveci-infection may develop immune reconstitution inflammatory syndrome (IRIS), following combination antiretroviral therapy (cART)-initiation. Though starting cART early is standard of care, PCP-associated IRIS could counteract its benefit. The aim of this study was to identify possible predictors and susceptible risk factors.

METHODS: Frankfurt HIV Cohort patients with PCP were identified by hospital database query between January 2010 and June 2016. Among 108 individuals with HIV-associated PCP, 97 started off cART in the course of PCP-treatment (PCPT) and were evaluated retrospectively. Patient charts were [...] a Fisher’s exact test  b Wilcoxon-Mann-Whitney  c Median (1st and 3rd quartiles)

RESULTS: IRIS occurred in 12 of 97 patients (12.4%); significant findings in this group were: higher re-hospitalization rate (41.7% vs. 4.7%; odds ratio [OR] = 14.46; p = 0.009) and more frequent need for intensive care treatment (66.7% vs. 30.6%; odds ratio [OR] = 4.54; [...] a Fisher’s exact test  b Wilcoxon-Mann-Whitney  c Median (1st and 3rd quartiles)

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CONCLUSION: Hospitalization and morbidity parameters underscore the clinical relevance of PCP-related paradoxical IRIS. A viral load of > 6 log_{10}/ml and serum IgG may previously help to assess the individual risk for IRIS. However, this analysis supports the use of protease inhibitors and corticosteroids, in order to reduce the incidence of PCP-IRIS. No adverse respiratory effects due to early cART initiation or steroid use were observed.

REFERENCES:

KEYWORDS:
Antiretroviral therapy (ART), HIV, Immune reconstitution inflammatory syndrome (IRIS), Pneumocystis, Risk factors