

Concomitant diseases of HIV-positive persons (PLWHA) in Germany

A comparison between sexes on basis of the KompNet cohort

K. Jansen¹, N. H. Brockmeyer^{1,2}, M. Baudewig³, R. Walli³, B. Haastert⁴, M. Freiwald⁵, T. Harrer⁶, S. Staszewski⁷, B. Kuhlmann⁸, F. Mosthaf⁹, R. E. Schmidt¹⁰, S. Scholten¹¹, A. Skaletz-Rorowski¹, S. Esser¹², C. Michalik^{1,13}
and the Competence Network for HIV/AIDS

¹Competence Network for HIV/AIDS, Bochum ²Universitätsklinik, Bochum ³GlaxoSmithKline, München ⁴mediStatistica, Neuenrade ⁵Praxis Freiwald-Rausch, Berlin ⁶Universitätsklinik, Erlangen ⁷HIVCenter, Universitätsklinik, Frankfurt ⁸Praxis Georgstraße, Hannover ⁹HIV-Schwerpunktpraxis, Karlsruhe ¹⁰Medizinische Hochschule, Hannover ¹¹Praxis Hohenstaufenring, Köln, ¹²Universitätsklinik, Essen ¹³Centre for Clinical Trials, Cologne

Background and Objective

- With increased life expectancy, concomitant diseases become more important for treatment of PLWHA
- Knowledge of prevalences of concomitant diseases important to sensitise for long-term outcomes of HIV-infection and ART
- Important groups of diseases/diagnoses:
 - Reduction of liver function
 - Nephrological constraints
 - Coronary heart disease
 - Risk of cardiovascular events

Objectives

- To screen KompNet cohort regarding prevalences of concomitant diseases, comparing sexes
- To fit multiple logistic regression models to evaluate impact of sex on occurrence of specific groups of concomitant diseases

Methods

- Cross sectional analysis (state of date: 1.9.2008) of dataset including patients with at least one documented visit within last 12 month
- Estimation of prevalences of documented concomitant diseases using 95%-confidence intervals, stratified by sex
- Events specific for groups of diagnoses (reduction of liver function, nephrological constraints, coronary heart disease, risk of cardiovascular events) were cumulated to estimate prevalences
- Identical diagnoses of one patient were counted only once
- Multiple logistic regression models were fitted to evaluate impact of sex on occurrence of groups of diagnoses
- Sex, age (years, continuous variable), smoking habit (ever/never), CD4-cell count/ μ l (continuous variable) and ART-status (naiv, 1st-line-regimen, follow-up-regimen) were used as independent variables

Results

Table 1
Characteristics of patient population, by sex

	Sex		p-value
	Men	Women	
All (abs.)	5,184	901	
All (%)	85.2	14.8	
Mean Age (years)	44	41	< 0.01
Risk of transmission*			
MSM	72.9	---	
heterosexual	10.7	50.8	< 0.01
IVDU	4.8	14.9	< 0.01
HPL	2.3	17.9	< 0.01
other	9.7	16.4	< 0.01
Stage of disease			
CDC A	27	31	
CDC B	47	45	
CDC C	26	24	
ART status			
naiv	11.9	9.7	
treated	88.1	90.3	
Mean CD4-cell count/ μ l in treated patients	544	517	< 0.01
Proportion of viral load < detection limit in treated patients	79	76	

* multiple answers possible

Table 3
Prevalences of groups of diagnoses, by sex

Diagnosis group	Men			Women		
	Prevalence (%)	95%-CI		Prevalence(%)	95%-CI	
		upper (%)	lower (%)		upper (%)	lower (%)
Reduction of liver function	6.5	5.8	7.2	5.1	3.8	6.8
Nephrological constraints	3.6	3.1	4.1	1.7	0.9	2.7
Coronary heart disease	4.8	4.3	5.4	1.6	0.9	2.6
Risk of cardiovascular events	25.3	24.2	26.6	19.6	17.1	22.4

Table 2
Prevalences of ten most frequent concomitant diseases, by sex

Diagnosis	Prevalence (%)	95%-CI	
		upper (%)	lower (%)
Men			
Depression	19.5	18.4	20.6
Lipodystrophy	12.2	11.3	13.1
Hepatitis B (residual antibodies)	10.3	9.5	11.2
Myo-skeletal diseases	10.1	9.3	10.9
Arterial hypertension	9.8	9.0	10.7
Hypercholesteremia	8.4	7.7	9.2
Hypertriglyceridemia	8.4	7.7	9.2
Gastrointestinal illness (unspec.)	8.0	7.3	8.8
Lues (residual antibodies)	8.0	7.3	8.7
Lymphadenopathy-Syndrom	6.5	5.8	7.2
Women			
Depression	16.2	13.8	18.7
Lipodystrophy	11.7	9.7	14.0
Chronic Hepatitis C	10.9	9.0	13.2
Myo-skeletal diseases	8.3	6.5	10.3
Hepatitis B (residual antibodies)	7.4	5.7	9.3
Arterial hypertension	7.0	5.4	8.9
Gastrointestinal illness (unspec.)	6.1	4.7	7.9
Nicotine abuse	6.0	4.6	7.8
Skin disease (unspec.)	5.8	4.4	7.5
Hepatitis A (residual antibodies)	5.4	4.0	7.0

Table 4
Odds Ratios for male sex for groups of diagnoses, multiple logistic regression model

Diagnosis group	Odds Ratio	95%-CI		p-value
		upper (%)	lower (%)	
Reduction of liver function	1.18	0.86	1.63	0.307
Nephrological constraints	2.24	1.27	3.98	0.006***
Coronary heart disease	2.59	1.47	4.58	0.001***
Risk of cardiovascular events	1.15	0.96	1.39	0.134

Conclusion

- Baseline characteristics of sexes did not differ heavily except for risk of transmission
- Prevalence of depression was documented most frequently by far in both sexes
- High impact of well known concomitant diseases in HIV-therapy in both sexes, such as lipodystrophy, HBV, myo-skeletal diseases, arterial hypertension, hypercholesteremia, gastrointestinal illness
- Risk of cardiovascular events had highest prevalence of group of diagnoses in both sexes by far, but was higher in men
- HCV more prevalent in women than in men (10.9% vs. 5.6%), probably due to differing proportions of IVDU

- Reduction of liver function had higher prevalences in both sexes than nephrological constraints
- Higher risk for nephrological constraints and coronary heart disease in men

Contact

Klaus Jansen
Cohort Manager of the Competence Network for HIV/AIDS
Klaus.jansen@klinikum-bochum.de
www.kompetenznetz-hiv.de

Gefördert vom