SEXUAL HEALTH OF SEX WORKERS ON THE CZECH-GERMAN BORDERS

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BACKGROUND

The prostitution in the Czech Republic is dominating especially on the borders. Network East-West, z.s. on the Czech side and Government of Upper Palatinate in Regensburg on the German side has been operating in the binational JANA project. JANA offers free examination and consulting for HIV and STIs to the mixture of immigrant and local prostitutes who have only limited approach to the health care. Testing is performed either in the emergency room in JANA Centre or in the mobile ambulance in the field. The aim of this study was mainly to establish cooperation with non-profit organizations. The project results were used for prevalence determination of common STIs in sex workers.

Figure 1. Project JANA targets prostitutes, their clients and pimps from both streets and night clubs in three districts of the West Bohemian Region of the Czech Republic along the border with Germany – Domažlice, Klatovy and Tachov.

Figure 2. The mobile ambulance for field testing.

SUMMARY

The prevalence for *C. trachomatis* was determined to 7.3%, 2.9% to *N. gonorrhoeae*, 4.4% to *M. genitalium*, 41.6% to *M. hominis*, 23.4% to *U. urealyticum* and 36.5% to *U. parvum*. Co-infection of *U. urealyticum* and *M. hominis* was observed in 15.3% of patients.

CONCLUSION

The prevalence of *C. trachomatis* in sex workers has stable trend. It was reported in Jana annual report that sex workers examined by PCR in 2010–2013 had 5.8% *C. trachomatis* positive samples.¹ The prevalence of mycoplasmas and ureaplasmas was tested for the first time in the people providing sexual services in the Czech Republic. Data could be compared to the population with non-risky behavior

MATERIAL AND METHODS

In the total of 137 cervical swabs were obtained from 106 sex workers (age: 19–61 years) in period January 2017 to December 2017. The part of the examination was informed consent a clinical questionnaire. Cervical swabs were isolated by Maxwell Blood DNA

Purification Kit (Promega, USA). All samples were tested by real-time PCR kits (GeneProof, Czech Republic) for *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium*, *Mycoplasma hominis*, *Ureaplasma urealyticum* and *Ureaplasma parvum*.

RESULTS

Overall 137 clinical samples from 106 Czech and immigrant patients (Fig. 4) were examined in this study. The STI pathogen positivity was found at 75.2% (n=103) of all clinical samples (Fig. 3).

Pathogens detected in 137 samples/106 sex workers

Nationalities

Figure 3. The graph provides results of PCR testing. Figure 4. The distribution of nationalities in sex workers. The group "Others" represents people from Germany, Poland, Lithuania, Mongolia, Cuba, Thailand and Latvia. More than half of the sex workers are immigrants.

Distribution of STI pathogens in Czech workers

Distribution of STI pathogens in immigrants

Figure 5., 6. Czech workers had a higher prevalence of *C. trachomatis* (12.1%) and *M. hominis* (56.9%) than immigrants. Immigrants had a higher prevalence of *U. parvum* (44.2%).

(author's poster entitled: Molecular detection and prevalence of mycoplasmas, ureaplasmas and *Chlamydia trachomatis* in human urogenital tract – cross-sectional study, IUSTI 2016) where the prevalence of *C. trachomatis* was 2%, *M. hominis* was 5%, *U. urealyticum* was 5% and *Ureaplasma parvum* was 36%. *M. genitalium* was not detected in this group. Overall, this study strengthens the idea that STI pathogens

in sex workers are more prevalent than in the population with non-risky behavior. The biggest problem of prostitution is underdiagnosis due to anonymity absence. Non-profit organizations offer anonymous screening program and improve the access to the therapy.

¹ Annual report of non-profit organization "JANA" from 2016

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