

puncture. We also took material from tubes with microbiological loop in aim to do bacteriological investigation.

Results The mean age in first group was $25 \pm 0,5$ years, in control group was 31 ± 1 years. Included criteria for both groups was infertility and absence of STI in endocervix. In case group all patients had pelvic inflammatory disease in anamnesis, high level of CT antibodies (MOMP and HSP), severe tubal pathology and adhesive process revealed during laparoscopy. We did not find CT, NG or any non STI microorganisms in tubes in both groups. We found twice *Ureaplasma urealyticum* (UU) in tubes in control group.

Conclusion The principal feature of salpingitis is extensive tissue remodeling that produces chronic sequelae such as scars and lumen obstruction and during this process the STIs and non STIs are cleared by the immune system. So, in spite of severe tubal pathology we did not find STI in Fallopian tubes. UU do not injure tubes (as we can see in control group), it could be a co-infecting pathogen, persists after antibiotics therapy and selective elimination of main pathogen.

Disclosure No significant relationships.

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**VAGINAL AND RECTAL *M. GENITALIUM* (MG),
C. TRACHOMATIS (CT), AND *N. GONORRHOEAE* (GC)
CO-INFECTION AMONG WOMEN IN SEATTLE, WA**

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Background Rectal CT is increasingly recognized as a common infection among women, even in the absence of anal sex. Little is known about the prevalence or epidemiologic pattern of rectal MG and rectal MG/CT/GC co-infection among women.

Methods We recruited women at high risk for urogenital CT from the municipal STD clinic in Seattle, WA, 2017–2018 for a cohort study. Participants self-collected vaginal and rectal specimens for nucleic acid amplification testing (NAAT) for CT and GC. We retrospectively tested enrollment samples for vaginal and rectal MG using NAAT. We examined factors associated with rectal MG using logistic regression to calculate adjusted odds ratios (aOR) and 95% confidence intervals (CI).

Results Of 50 enrolled women, 13 (26%) tested positive for MG. Ten (20%) had vaginal MG and 11 (22%) had rectal MG. Eight (16%) women had concurrent vaginal and rectal MG, 3 (6%) had isolated rectal MG, and 2 (4%) had isolated vaginal MG. Among 10 women with vaginal MG, 3 (30%) also had vaginal CT but none had vaginal GC. Of 11 women with rectal MG, 4 (36%) also had rectal CT but none had rectal GC. Compared to women without rectal MG, women with rectal MG were more likely to be <25 years old (aOR=2.9; 95% CI=0.7–11.9), less likely to be White (aOR=0.22; 95% CI=0.03–1.8), and less likely to report anal

sex in the past 12 months (aOR=0.41; 95% CI=0.08–2.2). No women with rectal MG reported anal symptoms.

Conclusion Rectal MG was common (prevalence=22%) among women at high risk for vaginal CT, but the majority of women with MG did not have CT or GC. Rectal MG was most often identified among women with vaginal MG, and was not significantly associated with reporting anal sex. The high prevalence of rectal MG merits further investigation to understand its natural history and clinical implications.

Disclosure No significant relationships.

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**ENZYME COMPLEXES OF ALCOHOL METABOLISM
PROTECT AGAINST LIVER INJURY IN ANIMAL MODELS
FED ACUTE ALCOHOL AND ANTI-HIV DRUGS**

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Background A significant portion of AIDS patients under anti-HIV therapies consume or abuse alcohol, which causes liver injuries. This study was to evaluate effects of eliminating blood alcohol on anti-HIV drugs and alcohol-induced liver injuries through utilizing nanoparticles of enzyme complexes of alcohol metabolism that were developed previously.

Methods The enzyme nanoparticles were intravenously injected into mouse models of acute alcohol binge or chronic alcohol and antiviral feeding in the presence of antivirals (ritonavir-boosted lopinavir). Parameters for liver pathologies were examined.

Results In the acute model, the enzyme nanoparticles significantly reduced the blood alcohol concentration (BAC) within four hours compared to control. No significant effects of the anti-HIV drugs on BAC were observed in the acute alcohol binge model. Plasma alanine aminotransferase (ALT) and expression of liver TNF α were both significantly increased in the alcohol fed mice, which were normalized by the enzyme nanoparticles. In the presence of the antivirals, ALT was partially reduced by the enzyme nanoparticles. In the chronic alcohol feeding, alcohol induced inflammation, fatty liver and increase of ALT, which were deteriorated by the antivirals. The enzyme nanoparticles slightly reduced BAC, ALT and expression of inflammation markers of TNF α , F4/80 and IL-6 and lipogenic factors of ACC, LXRA and SREBP1. In addition, the anti-HIV drugs potentiated alcohol induced expression of cellular organelle stress markers of CHOP, sXBP-1, ATF6 and GCP60, which were not reduced by the application of the enzyme complexes.

Conclusion Eliminating blood alcohol by the enzyme nanoparticles protects the liver against acute alcohol-induced liver injuries, and the protection is much less effective under chronic alcohol feeding or combination of alcohol and antiviral use due to severe cellular stresses in the liver.

Disclosure No significant relationships.