infected adults.

Methods:

This was a prospective observational clinical study on adults with well-controlled HIV infection who had received or were scheduled to receive PCV-13 at the Eastern Virginia Medical School HIV clinic from 2013-2014. We collected nasal swabs from 105 subjects just prior to PCV-13 receipt, 100 of whom returned for a second nasal swab 4-6 weeks after the first visit. We also collected nasal swab from 50 additional subjects 11-13 months after PCV-13 receipt. Nasal swabs were stored and plated for pneumococcal isolation according to the World Health Organization protocol.

Results:

Only one of the 255 nasal swabs from 155 subjects grew pneumococcus, for a nasal carriage rate of 0.64%. The single pneumococcal isolate was from a subject who had received PCV-13 one-year prior and was a non-vaccine serotype. Our subjects were all on antiretroviral therapy with a median CD4 count of 606 cells/mm^3.

Conclusion:

Our study demonstrates very low pneumococcal nasal carriage rates in adults with well-controlled HIV infection 3 years after PCV-13 introduction into the childhood vaccination schedule in the United States. These results were irrespective of direct PCV-13 vaccination amongst our subjects. Further studies are needed to determine if invasive pneumococcal disease in this population has also been affected by PCV-13 introduction.

1694. Nasopharyngeal colonization with pneumococci in HIV-infected adults following the introduction of pneumococcal conjugate vaccine-13 in children

Part of Session: 237. HIV: Other Opportunistic Infections in HIV

THERESA FEOLA, NP, CYNTHIA BONVILLE, MS, DONALD CIBULA, PHD, TIMOTHY ENDY, MD, MPH, JOSEPH B. DOMACHOWSKE, MD and **MANIKA SURYADEVARA, MD**; SUNY Upstate Medical University, Syracuse, NY

Background: Before widespread use of pneumococcal conjugate vaccine (PCV) in children, 14-20% of HIV-infected adults were colonized with pneumococci. We characterized nasopharyngeal pneumococcal colonization among HIV-infected adults following the introduction of PCV-13.

Methods: HIV-infected adults seeking care at the Designated AIDS Center in Syracuse, NY between December 2013 and March 2015 were eligible. Following informed consent, an NP sample was collected, and patient demographics, medical and social history including risk factors for invasive pneumococcal disease (IPD) recorded. Pneumococci were identified from the samples using standard microbiologic techniques.

Results: 707 nasopharyngeal samples were collected from 414 HIV-infected adults; 301 (72%) were males. Mean and median ages were 46.3 and 48 years, respectively. 391 (94%) and 42 (10%) were taking anti-retroviral therapy and sulfamethoxazole/trimethoprim prophylaxis, respectively. In addition to HIV infection, 210 (51%) had another co-morbidity placing them at increased risk for IPD. 12 (3%) had received PCV-13 and 220 (53%) had received pneumococcal polysaccharide vaccine-23 as recommended. Pneumococcus was isolated from 28/710 (4%) of samples and from 24/414 (6%) of patients. Colonization status was not associated with gender, race, co-morbidities, antibiotic use, smoking, alcohol use, intravenous drug use, children in the household, vaccine status, absolute neutrophil count, CD4 count, or viral load, however, colonized adults were more likely to have respiratory symptoms than those who were not colonized (46% vs 27%, p=0.02).

Conclusion: Current pneumococcal colonization rates in HIV-infected adults are below historical rates suggesting reduction due to the widespread use of PCV-13. When present, colonization may be associated with respiratory symptoms.

Findings in the abstracts are embargoed until 12:01 a.m. PDT, Oct. 7th with the exception of research findings presented at the **ID**Week press conferences.

1695. A systematic review of the relative efficacy and toxicity of treatment regimens for HIV-associated cerebral toxoplasmosis: is trimephoprim-sulfamethaxozole a real option?

Part of Session: 237. HIV: Other Opportunistic Infections in HIV

PRIYALEELA THOTA, MD[1], **ABHISHEK DESHPANDE, MD, PHD**[2], DANIELA PELLEGRINO, MD[3], VINAY PASUPULETI, MD, PHD[1], VICENTE BENITES-ZAPATA, MD[4], JOSé VIDAL, MD, PHD[5] and ADRIAN V. HERNANDEZ, M.D., PH.D.[2,6]; [1]Case Western Reserve University, Cleveland, OH, [2]Cleveland Clinic, Cleveland, OH, [3]University of Sao Paulo, São Paulo, Brazil, [4]Universidad de San Martin de Porres, Lima, Peru, [5]Instituto de Infectologia Emílio Ribas, Sao Paulo, Brazil, [6]Universidad Peruana de Ciencias Aplicadas, Lima, Peru

Background: Pyrimethamine and sulfadiazine (P-S) combination is effective and considered the mainstay therapy for cerebral toxoplasmosis (CT). Alternative treatment regimens are available, but their relative efficacy and tolerability are not well known. Particularly, trimephoprim-sulfamethaxozole (TMP-SMX) shows potential advantages (i.e., tolerability, posology, parenteral formulation, cost, and accessibility) but its use is infrequent when P-S is available.

Methods: We searched PubMed and 4 other databases to identify randomized controlled trials (RCTs) and cohort studies comparing different regimens for the treatment of HIV-associated CT. Two independent reviewers searched and identified studies and extracted data. Risk ratios (RRs) were pooled across studies using random-effects models.

Results: Nine studies were included (5 RCTs, 3 retrospective cohorts, 1 prospective cohort). Treatment with P-S has the same or better clinical efficacy than P-C or TMP-SMX in terms of partial or complete response clinical response (P-C vs P-S: RR 0.87, 95%CI 0.70-1.08; TMP-SMX vs P-S: RR 0.97, 95%CI 0.78-1.21) and radiological response (P-C vs P-S: RR 0.92, 95%CI 0.82-1.03). Safety profile in terms of skin rash (P-C vs P-S: RR 0.81, 95%CI 0.56-1.17; TMP-SMX vs P-S: RR 0.17, 95%CI 0.02-1.29), liver impairment (P-C vs P-S: RR 0.48, 95%CI 0.24-0.97) and drug discontinuation due to adverse events (P-C vs P-S: RR 0.32, 95%CI 0.07-1.47) were worse with P-S regimen.

Conclusion: The available evidence fails to identify any one superior regimen for the treatment of CT. However, P-S regimen has worse safety profile than P-C or TMP-SMX. Although current evidence does not allow a definitive recommendation, use of TMP-SMX for treatment of HIV-associated CT is consistent with the available data. More large studies comparing alternative therapies are needed.

1696. Factors Associated with Mortality in Patients with HIV and Sporotrichosis co-infection

Part of Session: 237. HIV: Other Opportunistic Infections in HIV

JOSé MOREIRA, MD; Oswaldo Cruz Foundation, Evandro Chagas National Institute of Infectious Diseases (INI/FIOCRUZ), Rio de Janeiro, Brazil, DAYVISON FREITAS, MD PHD; Evandro Chagas National institute of infectious diseases , Oswald Cruz foundation (INI/ FIOCRUZ), Rio de Janeiro, Brazil and CRISTIANE LAMAS, MD, PHD; Evandro Chagas national institute of infectious disease, oswaldo Cruz foundation (INi/FIOCRUZ), Rio de Janeiro, Brazil

Background:

Sporotrichosis is a worldwide-distributed mycosis caused by species of the *Sporotrhrix* complex. It is also recognized as a major opportunistic disease for HIV population in regions where both epidemics overlap. Thus, we aim to evaluate the risk factors potentially associated with death among co-infected patients.

Methods:

Three databases (all from 1984-2015) were searched for publication reporting infection by sporotrichosis in HIV subjects. The search strategy was based on a combination of the keywords "Sportrichosis" AND "HIV"OR "AIDS". All references were also reviewed. An analytical database was created. Logistic regression models were used to assess the independent predictors of mortality. A two-sided p value <0.05 was considered significant. SPSS version 22 was used for analyze.

Results:

A total of 61 patients with HIV/Sporotrichosis were identified. An increase in the number of reports over time was noted, with 47.5% cases from 2010-2015 (Figure). Thirty-six (60%) were from Brazil. Mortality was 29%. Survivors presented with higher CD4+ counts compared to non-survivors (92 vs 58 cells/mm3, p<0.01). *Sporothrix* meningitis was found in 2.5% and 56.3% of survivors and non-survivors, respectively (p<0.0001). Mortality improved from 46% in the 1990s to 12% in the 2010s. Meningitis and use of Amphotericin B (AmB) predicted death (OR 76.95; CI 95% 5.98-9.89,p<0.001; OR 0.044; CI 95% 0.002-0.913, p<0.043, respectively).

Conclusion:

We found that the presence of meningitis negatively impacts the overall survival whereas the use of AmB was associated with improved outcomes. In addition, clinicians dealing with both entities need to be aware of the risk of severe sportrichosis in HIV-infected patients.

Figure 1

Number of HIV-associated sporotrichosis cases reported over a period of 4 decades.