scores. Thirty (39%) women with antepartum depression had resolution of symptoms postpartum and no women developed incident depression in the postpartum period. There was a trend toward increased rates of antenatal depression among HIV-infected vs. uninfected women (69% vs. 57%, $P = 0.13$). Both depressed and nondepressed pregnant women experienced low rates of intrauterine fetal demise, intrapartum hypertension, and preterm delivery. However, women with depression had 3-fold higher incidence of intrauterine growth restriction on prenatal ultrasound (4.4% vs. 1.5%).

***Conclusion.*** We found that the majority of pregnant women in our population experience some form of depression during pregnancy. Most women with antepartum depression experienced improvement in their mood postpartum, which contrasts with patterns of perinatal depression in developed countries. We are planning qualitative studies to understand the social contributors for antepartum depression in India, and to identify potential solutions.

***Disclosures.*** **All authors:** No reported disclosures.

**809. Osteitis Caused by Bacillus Calmette-Guerin Tokyo 172 Strain in Immunocompetent Patients**

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections
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***Background.*** Immunization with BCG vaccine has been associated with local and systemic complications. Osteitis secondary to *Mycobacterium bovis*-BCG is a rare complication with frequency of 0.1/100,000 doses. Below we report a series of a third level pediatric hospital in Mexico City.

***Methods.*** This is a retrospective, descriptive, and observational study of subjects diagnosed with TB at the National Institute of Pediatrics (INP) in Mexico City during the 2010–2018 period. Subjects under 18 years with skeletal TB and positive culture for *M. bovis*-BCG strain were included.

***Results.*** From 2010 to 2018, 118 cases of TB were treated, from which 3 (2.5%) were osteitis secondary to *M. bovis*-BCG Tokyo 172 strain, two male and one female. All three cases had BCG immunization at birth. The age at diagnosis was 1, 2, and 3 years, respectively. The most common symptoms were pain, edema, and limp. Sites of injury were right proximal tibia, epiphysis of left distal femur, and left ileopubic eminence. Lytic lesions with periosteal reaction were reported in plain radiographs of all cases. The TST and COMBE studies were negative. Diagnosis was confirmed by biopsy with identification of *M. bovis*-BCG Tokyo 172 strain by Genotype. All strains were sensitive to rifampicin. The treatment given was INH, RIF, E, PZA, and Clarithromycin during 2 months of intensive phase followed by 7 months of maintenance phase with INH-RIF. A surgical approach was performed with curettage and graft placement in two cases. Tetrazoil nitro blue tests and immunoglobulin levels were normal. Outcome was favorable in all three cases.

***Conclusion.*** In Mexico the BCG vaccine is part of the national immunization program and is applied to 99% of newborns. This work is the first report in Mexico of osteitis secondary to *M. bovis*-BCG strain Tokyo 172. We suggest considering the diagnosis in patients with osteitis under 5 years of age with a history of BCG vaccination.

***Disclosures.*** **All authors:** No reported disclosures.

**810. Diagnosis of BCG Aortitis by Plasma Metagenomic Sequencing**

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections
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***Background.*** The use of intra-vesicular Bacille Calmette-Guerin (BCG) for bladder cancer can result in disseminated/endovascular BCG infection. The diagnosis of BCGosis in this setting is complicated by the risks of biopsy of an endovascular focus and the long duration of acid-fast bacilli (AFB) cultures.

***Methods.*** A 68-year-old male with a history of hypertension, aortic aneurysm (status post repair), and bladder cancer treated with intravesicular BCG complicated by BCGosis presented several years later with two weeks of fevers, chills, night sweats, and back pain. Computed tomography (CT) scan demonstrated aortitis with periaortic abscess. There was concern for BCG aortitis given the antecedent BCG exposure and prior BCGosis. Blood cultures were negative; AFB blood cultures were contaminated. A sample of plasma was sent to Karius (Redwood City, CA) for next-generation sequencing (NGS). Cell-free DNA was extracted and NGS performed. Human sequences were removed and remaining sequences were aligned to a curated pathogen database of >1,000 organisms. Organisms present above a statistical threshold were reported. The patient underwent surgical replacement of the infected endograft; endovascular samples were sent for AFB culture.

***Results.*** Plasma-based NGS of cell free DNA detected *M. tuberculosis* (Mtb) complex at 48 hours (within 28 hours of sample receipt). Within the Mtb complex, the majority of sequences aligned to *M. bovis* with five reads aligning uniquely to *M. bovis*. No reads aligned to the region of deletion 1 (RD1) deleted in BCG. Surgical AFB cultures were positive for Mtb complex by PCR probe at nine days; Mtb complex was recovered in culture at 19 days.

***Conclusion.*** Plasma metagenomic sequencing can be used to rapidly diagnose BCG-associated endovascular infection.

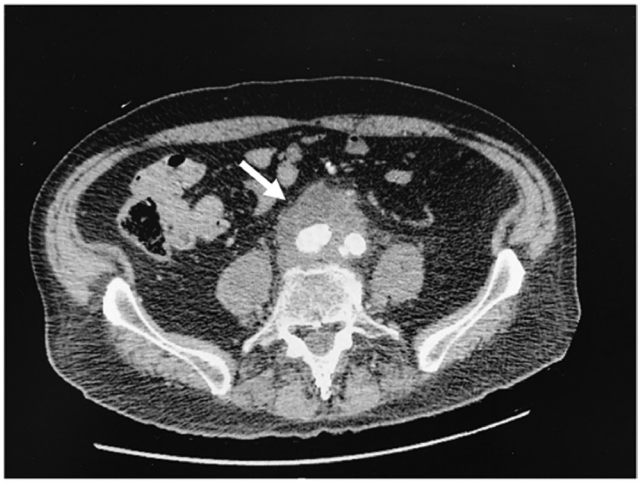

**Figure 1. CT scan showing aortic dilation and abscess (white arrow).**

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**811. A Randomized Controlled Trial of Prednisolone vs. Interleukin 17 A Inhibitor Secuinumab in the Management of Type 1 Lepra Reaction in Leprosy Patients**

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections
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***Background.*** Leprosy is a chronic granulomatous infectious disease caused by Mycobacterium leprae. Type 1 lepra reactions (T1R) are delayed hypersensitivity (Type IV) reactions which if not treated promptly leads to disability affecting eyes, hands and feet. IL-17 A which is produced mainly by inflammatory T helper 17 cells is up regulated in patients of Lepra reaction. Conventionally oral corticosteroids steroids have been the main stay in the management of Type 1 lepra reactions. This novel biologic drug is a targeted therapy which blocks the offending interleukin molecule without any serious adverse effects. We report the results of this randomized control study wherein an immuno-modulator biologic molecule has been safely used to treat an inflammatory reaction in a chronic infectious disease. Outcomes were measured using recurrence rate, a clinical severity score, quality of life, and adverse events.

***Methods.*** Seventy-four patients with new T1R were randomized to receive Secukinumab (a human IgG1κ monoclonal antibody that binds to the protein interleukin (IL)-17A) or Prednisolone for 20 weeks. IL-17 A levels were correlated before and after the intervention.

***Results.*** Recovery rates in skin signs was similar in both groups (92% vs. 87%). Improvements in nerve function both, new and old, sensory (67% vs. 48%) and motor (73% vs. 76%) loss were higher (but not significantly so) in the patients on Secukinumab. Recurrences rates of lepra reaction (25%) were high in both groups, and recurrences occurred significantly earlier (8 weeks) in patients on Secukinumab, who needed 10% more additional prednisolone. Serious major and minor adverse events rates were much lesser with Secukinumab as compared with Prednisolone alone. Both groups had a significant improvement in their quality of life after the study, measured by the Short form survey SF-36.

***Conclusion.*** This is the first double-blind randomized control trial assessing Secukinumab, in the management of lepra reaction. It could be a safe alternative second-line drug for patients with leprosy reactions who are not improving with prednisolone or are experiencing adverse events related to prednisolone. IL-17A levels could be an important diagnostic marker to diagnose and prognosticate cases of Type 1 Lepra reaction, which if not treated in time can lead to irreversible nerve damage.

***Disclosures.*** **All authors:** No reported disclosures.

**812. Case–Control Trial to Evaluate the Cytokine Response to the Use of Capsule Thalidomide in Erythema Nodosum Leprosum in Leprosy Patients**

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***Background.*** Leprosy is a chronic granulomatous disease caused by *Mycobacterium leprae*. Type II lepra reaction or Erythema Nodosum Leposum is a