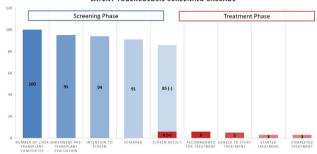
lack of epidemiological risk factors and negative radiographic findings. The proportion of LTC who completed each step in the cascade of care for LTBI was determined.

**Results.** Of 102 LTC, 100 met inclusion criteria. Two were excluded due to past LTBI treatment. Of 100 LTC, 95 completed a pre-TID evaluation. For 94 (98.9%), there was intention to screen. Of those intended for screening, 91 (95.8%) successfully completed screening; 6 (6.6%) patients screened positive and 85 (93.4%) screened negative. All 6 LTC who tested positive were recommended for treatment. Five of 6 (83.3%) agreed to treatment, 3/6 (50.0%) started treatment, and all 3 completed treatment. Reasons for non-treatment included: deferral until completion of HCV treatment or hepatologist approval or patient refusal. Treatment regimens included rifampin (n = 1) and isoniazid (n = 2).

Conclusion. The prevalence of LTBI in our LTC cohort was low. Nonetheless, TID played a role in the successful completion of LTBI screening and identifying those appropriate for treatment in this vulnerable patient population. Barriers to successful LTBI screening and treatment completion are contingent on effective care coordination and addressing competing co-morbidities.

## LATENT TUBERCULOSIS SCREENING CASCADE



Disclosures. All authors: No reported disclosures.

## 1392. Tuberculosis Disease in Recipients of Organ-Transplantation, California 2010–2017

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**Session:** 154. Transplant ID: Myobacterial Infections *Friday, October 4, 2019: 12:15 PM* 

**Background.** Tuberculosis (TB) disease in persons who have received organ transplantation causes high morbidity, but the epidemiology and clinical features of this problem remain poorly described.

**Methods.** Using California TB registry data from 2010–2017, we describe clinical features of all TB cases occurring in patients who previously received solid-organ transplantation. We compared TB cases with and without transplant, and examined mortality controlling for age.

**Results.** During 8 years of observation, the California TB Registry recorded 116 cases of post-transplant TB. A majority of patients with post-transplant TB were >45 year old (84%), nonwhite (90%), and born outside of the United States (84%). Of 116 cases, 48 (41%) had pulmonary disease, while 68 (59%) had extra-pulmonary or both pulmonary and extra-pulmonary disease, compared with 69% and 31%, respectively, in non-transplant-associated TB (P < 0.01). Common sites of extrapulmonary disease in transplant patients included pleura (19%), cervical lymph nodes (12%), and bone (12%). Controlling for age, transplant cases were nearly twice as likely to die as non-transplant-associated TB cases (OR = 1.92, CI = 1.13, 3.25). Among 49 post-transplant TB cases with a positive TB skin test (TST) or interferon-gamma release assay (IGRA), 12 (24%) had the test performed > 6 months prior to TB diagnosis.

Conclusion. Our findings suggest that post-transplant TB disease is more likely to be extra-pulmonary and result in death than non-transplant-associated TB, and that opportunities may exist for preventing TB disease through screening and treatment for LTBI in this population.

Disclosures. All authors: No reported disclosures.

## 1393. Tuberculosis (TB) After Solid-organ Transplant (SOT) and Hematopoietic Stem Cell Transplant (HSCT)

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**Session:** 154. Transplant ID: Myobacterial Infections *Friday, October 4, 2019: 12:15 PM* 

**Background.** Tuberculosis is an important opportunistic infection that affects transplant recipients; the risk of active infection increases significantly when compared with the general population. Most disease results from reactivation of latent infection, being extrapulmonary and disseminated disease the most common presentations. Most cases

occur during the first year post-transplantation when immunosuppression is higher. We describe the clinical characteristics of patients diagnosed with TB after transplant.

*Methods.* Single-center, retrospective study of adult SOT and HSCT recipients in Mexico City, who developed active TB after transplant. We reviewed medical records, and collected demographic data, clinical characteristics, and outcome.

Results. We identified 16 patients with post-transplant TB; 13 SOT, and 3 HSCT recipients. The majority of SOT recipients were women (53.8%); median age was 43 years, 9 were kidney and 4 liver transplant recipients. At TB diagnosis, 84.6% of patients were on 3 immunosuppressors. Latent TB was assessed before transplant in 5 patients (38.4%), of these 3 (60%) were tuberculin skin test+, and 2 received isoniazid. Extrapulmonary disease was most common (7, 53.8%). Predominant symptoms were fever (53.8%), chills (30.8%), and diaphoresis (38.5%); six were diagnosed during the 1st year (46.2%) post-transplant; the median of time to diagnosis was 24 months after transplant. The diagnosis was made by histopathology in most cases. Twelve patients received first-line anti-TB treatment. Overall mortality was 30.8%, directly attributable to TB in 2. In the HSCT group, 2 were women; median age was 22 years, 2 allogeneic and 1 autologous transplant. One patient had been treated for latent TB before transplantation. Two developed disseminated disease. Two patients presented within 6 months after the transplant, and the other within a year. Mortality was 100%, attributable to the infection in two patients.

**Conclusion.** In regions with intermediate to a high prevalence of TB; post-transplant TB could result from reactivation or post-transplant exposure. Most cases occur within the first year post-transplant; clinical symptoms are nonspecific, which lead to a delay in diagnosis. Morbidity and mortality remains high.

Disclosures. All authors: No reported disclosures.

## $1394.\ Clinicopathologic$ Features of Infectious and Noninfectious Tissue Granulomas in Transplant Patients

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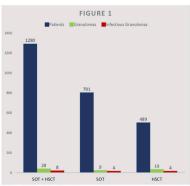
Session: 154. Transplant ID: Myobacterial Infections Friday, October 4, 2019: 12:15 PM

**Background.** There is a paucity of literature about the implications of granulomatous disease in hematopoietic stem cell transplant (HSCT) and solid-organ transplant (SOT) patients. Given the broad range of infectious and noninfectious etiologies as well as the heightened risk for severe infection, it is important to characterize the clinicopathologic features of granulomas in this population and to develop a framework to guide further evaluation.

*Methods.* We performed chart reviews of 1,280 transplant recipients (791 SOT and 489 HSCT) at Yale-New Haven Hospital from 2009 to 2019 to identify patients with granulomas in pathologic specimens obtained peri-transplantation. Data on histopathology, microbiology, indication for biopsy, patient characteristics, and clinical presentation were recorded. Morbidity and mortality were noted at 1, 3, and 12 months after granuloma diagnosis.

**Results.** We identified 28 patients with granulomas (9 SOT, 19 HSCT); an incidence of 2.2%. None had explicit risk factors for MTB. Most granulomas (93%) were non-necrotizing. Common sources were lung (n=9) and lymph node (n=5). Most were found post-transplant (n=19) and biopsies were prompted mostly by symptoms (n=13) or incidental imaging findings (n=9). Most granulomas were not associated with an infectious process (n=20). Among infectious granulomas, bacterial soft-tissue infection (n=2), bartonellosis (n=2), and fungal infection (1 Cryptococcus and 1 Blastomyces) were most common. MTB PCR was negative in 4 specimens. Among granulomas discovered in SOT patients, 44% were infectious compared with 21% in HSCT recipients. Most infectious granulomas were found in symptomatic patients (75%). One granuloma-related adverse outcome occurred in a case of cryptogenic organizing pneumonia discovered pre-HSCT that worsened with tapering of immunosuppression post-HSCT.

Conclusion. Granulomas were uncommon in a large transplant population. Most were deemed noninfectious and their presence alone was not associated with adverse outcomes post-transplant or with increased immunosuppression. Granulomas were more likely to be infectious in SOT recipients and those with symptoms. Symptoms should guide the extent of microbiologic evaluation and reflexive MTB PCR testing is not warranted if risk factors are absent.



\*SOT Type: 582 kidney; 134 liver; 75 heart
\*\*HSCT Type: 486 allogenic, 2 autologous and allogenic, 1 autologous