

Image quality was assessed by two readers using a scoring system (1=non-diagnostic, 2=diagnostic, 3=excellent). The qualities assessed were overall visualization of scar, visualization of blood pool, visualization of myocardium, and motion related blurring. Wilcoxon Rank-sum tests were used to compare the two sequences.

**Results:** Our population had a mean age of 17 years (SD=8), average BSA of 1.5 (SD of 0.3), average HR of 91 bpm (SD=18), and average LVEF=53% (SD=5.8). Scar vs myocardium intensity ratio increased 6.14% for DBI acquisitions ( $p<0.003$ ). DBI exhibited comparable image quality in three categories (blood pool, myocardium, scar visualization) with a medium rating of 3 for both readers with no statistically significant difference. DBI performed better than conventional DE with motion related blurring ( $p<0.01$ ) with median rating for conventional DE being 2.5, and DBI being 3. The overall ratings presented a statistically significant difference ( $p<0.05$ ) with the conventional DE median being 2.5, and the DBI being 2.75.

**Conclusions:** When compared to the conventional DBE sequence, DBI shows improved visualization of myocardial scar by suppressing blood pool signal and provides comparable imaging quality while providing improved motion correction with the advantage of removing constraints of breath-holding.

## Chest

### Primary cavitating tuberculosis in an 8-month-old infant

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Cystic and cavitary lung lesions in infants can be indicative of a range of underlying conditions, including primary cavitating tuberculosis and congenital pulmonary airway malformation (CPAM). In an 8-month-old infant presenting with these symptoms, a thorough clinical evaluation is necessary to identify the underlying cause of the lesions.

The radiological findings of advanced primary tuberculosis in an 8-month-old infant may include infiltrates, consolidation, cavitations and lymphadenopathy. However, these findings

are not specific to tuberculosis and can also be seen in other conditions such as congenital pulmonary airway malformation when complicated with infection.

CPAM is a congenital lung anomaly that results from an abnormality in lung development. The radiological features of CPAM include a cystic lesion in the lung, typically with well-defined margins and air-fluid levels, but it can contain only air.

Distinguishing between advanced primary tuberculosis and CPAM can be challenging, as both conditions can have similar radiological findings. However, other clinical features such as fever, cough, weight loss, and positive tuberculosis tests can help in the diagnosis of tuberculosis. In contrast, CPAM is typically asymptomatic and may be detected incidentally on routine imaging.

In summary, advanced primary tuberculosis in an 8-month-old infant can present with radiological findings that overlap with those of CPAM when complicated with infection. Tuberculosis in infants may present with unusual clinical and radiologic findings, and primary cavitary tuberculosis can also be seen in this age group. However, a careful evaluation of clinical features, radiographic imaging and appropriate diagnostic tests can help in distinguishing between these two conditions.

**Keywords:** infants, cavity, tuberculosis, CPAM

### Pediatric Tuberculosis: From Head to Toe

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**Introduction:** Tuberculosis (TB) is a major worldwide health issue caused by the *Mycobacterium tuberculosis* complex, which may affect various parts of the body and a wide range of age groups. When it comes to tuberculosis in children, the diagnosis may be radiologically suggested through the presence of hilar and mediastinal lymph node enlargement, a miliary pattern and a slow developing pneumonia.

There are two possible outcomes from a primary TB infection: the disease may enter a state of latency or it may progress to a primary disease. Once in its latent form, it can be reactivated and present in the form of pulmonary, extrapulmonary or disseminated TB. The primary complex, typical of the primary infection, is characterized by a pulmonary nodule and lymph