COMPUTERISED TOMOGRAPHY FINDINGS OF LYMPHOBRONCHIAL TUBERCULOSIS IN CHILDREN: A COMPARISON BETWEEN INFANTS AND OLDER CHILDREN

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Abstract

INTRODUCTION: Pulmonary tuberculosis (TB) in children is characterised by mediastinal and hilar lymphadenopathy. Lymphobronchial TB (LBTB) describes the situation where tuberculous lymph nodes affect the airways by compression or erosion. Infants may be more susceptible to severe complications due to their specific airway anatomy and immature immune systems.

AIM: The purpose of this study was to compare the computerised tomography (CT) findings of infants and children older than 12 months with LBTB to determine whether infants are more severely affected in terms of bronchial compression secondary to mediastinal lymphadenopathy and the complications thereof.

METHOD: The CT scans of 98 children (< 13 years) with LBTB were reviewed retrospectively by a paediatric radiologist for a previous study and the results captured in a database. The relevant data was extracted from the existing database and the two age groups were compared with regard to lymphadenopathy, airway narrowing and parenchymal complications.

RESULTS: Of the 98 patients, 51% were infants. There was no statistically significant difference between infants and children older than 12 months with reference to the frequency and distribution of airway compressions, lymphadenopathy and parenchymal findings. However, there was a statistically significant difference ($p<0.05$) in the number of infants with complete compressions when compared to the older children. Infants also had

a 1.9 times higher risk than older children, of having complete compressions.

CONCLUSION: As opposed to older children, infants' airways are more susceptible to complete airway compression as a result of LBTB. This is due to airway size and anatomic development. We therefore recommend that when infants present with symptoms of airway compression secondary to LBTB, they should be imaged using CT scanning and managed urgently.