

Clinical Utility of Chest Computerized Tomography in Cairo University Pediatric Hospital

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Abstract:

Background and aims: CT has an increased sensitivity over the conventional chest radiograph. CT is ideal for pulmonary and pleural lesions and can detect extension of mediastinal masses and lesions of the chest wall. This study aims at studying in a retrograde manner the indications and outcome of CT scan of the chest requested over a complete year in the Cairo University Pediatric Hospital.

Methods: We included all children referred for chest CT to the radiology department over the whole year of 2007. Using their medical files, data including age, sex, and indications for chest CT were collected, and data from CT reports were tabulated and analyzed.

Results: There were a total of 267 children. Among these patients 62.92 % were males. The mean age was 3.71 ± 3.76 years. The commonest clinical presentation was respiratory distress followed by chronic cough and recurrent infections in (42.3, 17.6 and 17.2%) respectively. Among cases, only 245 cases had CT reports. Thirty four patients (13.9%) had normal CT findings. CT findings of pneumonia alone or in combination with other findings were the commonest CT finding and present in 117 cases (47.7%). Unilaterality of lesions was present in 69 cases (59.0%).

Conclusions: This study concludes that chest CT can improve the accuracy of intrathoracic diagnosis. The appropriate selection of patients in whom chest CT will be beneficial is essential to avoid unnecessary radiation exposure in those whom less harmful investigations can provide adequate information, and chest CT is not required.

Key words: CT, tomography, chest, children, pneumonia, collapse.