

Two new radiological findings to improve the diagnosis of bronchial foreign-body aspiration in children

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Our objective was to report on two new chest X-ray signs (hyperinflation or obstructive emphysema with atelectasis in the same hemithorax, and aeration within an area of atelectasis) in children with foreign-body aspiration (FBA). We performed a retrospective review of clinical characteristics and chest X-ray films of 133 children with FBA. Of 133 children, 45% were under 3 years old. History of a choking crisis was present in 101 (75.8%); however, it was only elicited upon follow-up questioning in 33 children (32.7%). Early foreign-body (FB) extraction (<24 hr) was performed in 17.3%; removal took place between 1-7 days in 29.3%. The site of aspirated FBs was bronchial in 78.9%, laryngeal in 6%, and tracheal in 4.5%, with mobile FB in the trachea/bronchi in 4.5%. The chest X-ray was normal in 11.3%. Positive findings included: radiopaque FB (23.3%); hyperinflation or obstructive emphysema (21.8%); hyperinflation or obstructive emphysema with atelectasis in the same hemithorax (18%); l