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Editorial

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Silence foreign body aspiration syndrome

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Editorial

Foreign body aspiration (FBA) can be a life-threatening emergency. Aspiration of foreign bodies results in significant morbidity and mortality in children. The majority of foreign body aspirations occur in children younger than 4 years of age. Immature dentition, poor swallowing coordination, physical activity specially laughing, crying, talking during feeding, and propensity to explore the environment orally all make children susceptible to foreign body aspiration.[1] Young children chew their food incompletely with incisors before their molars erupt. Objects or fragments may be propelled posterior, triggering a reflex inhalation. Also whom undergo or pharyngeal procedures, have various oral appliances, become intoxicated, receive sedatives, or may have neurological or psychiatric disorders are at increased risk of aspirating foreign bodies. FBA have 3 phases. The first is acute choking episode occurring seconds to several hours after aspiration time and present with episodic cough attack, gagging, cyanosis, respiratory strider and wheezing sounds. This is life threading event.

The second phase is asymptomatic period that last from days to weeks after aspiration time. This is very important phase because the make delay in diagnosis and prone patients to third phase that called complication phase (include atelectasis, pneumonitis, bronchial granulomas, slow resolving or recurrent pneumonias, pneumo-mediastinum, bronchiectasis, plastic bronchitis, and bronchopleural or bronchovascular fistulization). I called second and third phase by new entity in medicine as Silent FBA syndrome (SFBAS). Silent FBA syndrome makes delay in diagnosing upper aerodigestive objects in children. There are numerous factors that might cause SFBAS. These may include one or more the following:

1. Because of fear in some family relationship parental denial account as common facts.
2. Lack of parent or caregiver recognition of the first phase (choking event) 3-Medical doctors whom no familiar with sign and symptoms of FBA that make misdiagnosis the presentation of FBs.
3. Unwarranted reassurance provided by medicines that cause temporary improvement of signs and symptoms.
4. Undiagnosed retained FBs (due to possibility of multiple aspirated FBs).
5. The most common FBs are radiolucent in chest X-rays.
6. Lack of consistent formal education regarding complications caused by aspirated foreign bodies in medical education programs.
7. Lack of awareness for peoples having children (parents, teachers…) or caregivers.

SFBAS diagnostic criteria are as following:

a. Major criteria are clear positive history of chocking episodes after to high-risk objects confirmed by clear positive physical examination (monotone localized wheezing, acute stridor, unilateral diminished of breathing sounds).
b. Minor criteria are recurrent resistance wheezing, persistent cough no response to medication, recurrent pneumonia, non-CF bronchectesis.

A high index of suspicion is required for prompt diagnosis of SFBAS.[2] Any patient who has a positive history of severe coughing fit after oral exposure to high-risk objects should be considered to have a respiratory foreign body until proven otherwise.[3] Delays in diagnosing of SFBAS in children may be avoided by obtaining a history, performing a physical examination, and reviewing inspiratory and expiratory chest radiographs. While treatment (prompt Bronchoscopy) is the main focus, prevention is the main key. Thus having good interview with other family member or with caregiver and may solve parental denial problems. Parents should be warned of the risk of death to young children from nuts, seeds, beans, uncut hot dogs, uncut grapes, gel candies, popped balloons, toys with small particles and disc batteries. Hot dogs and grapes should be cut into small pieces until a child is at least 5 years old and has no developmental delay in terms of swallowing. Children should be taught to sit quietly while chewing and swallowing. A child's diet should be advanced slowly in terms of food textures.[4] The public Education programs about choking hazards and prevention tips must be prepared.

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Conflicts on interest

The authors declare that there are no conflicts of interest.

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