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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/15090
DOI URL: http://dx.doi.org/10.21474/IJAR01/15090

RESEARCH ARTICLE

INHALED FOREIGN BODY OR ENDOBRONCHIAL TUBERCULOUS GRANULOMA? : ABOUT A CASE

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Manuscript Info

Manuscript History
Received: 29 May 2022
Final Accepted: 30 June 2022
Published: July 2022

Abstract

Tuberculosis is a public health problem. Endobronchial localization of tuberculosis is rare. Its endoscopic aspects are diverse and often misleading and can pose a problem of differential diagnosis such as a tumor or a foreign body in children. Chest CT helps in diagnosis and bronchoscopy remains the most reliable examination with biopsy. early treatment helps to avoid complications including bronchostenosis. We report the case of a tubercular bronchial granuloma in an infant hospitalized in pediatric intensive care for suspected inhalation of a foreign body.

Introduction:-

Tuberculosis is a public health problem. Endobronchial involvement is a rare form, even more exceptional in the pediatric population. Great clinical heterogeneity which can take all the clinical aspects, the table of inhalation of a foreign body among others.

We report in this case the discovery of a tuberculous bronchial granuloma in an infant hospitalized in pediatric intensive care, initially diagnosed and treated for inhalation of a foreign body.

Case report:
Identity:
Infant, 1 year 11 months old, female.

History:
+ No notion of tuberculosis contagion, nor passive smoking.
+Dry cough without fever, treated as bronchitis 1 month before the current symptomatology.
+ Vaccinated according to the national protocol.

Reason for hospitalisation:
Acute respiratory distress, presence of notion of penetration syndrome reported by the mother dating back 2 days. .

Physical examination :
+ Conscious, SG=15/15 th.
+ Polypnea, signs of respiratory struggle: Intercostal and supraclavicular drawing, without notion of cyanosis, reduction in respiratory sounds on the right, more marked bilateral sibilant on the right.
+ Tachycardia, normotensive, no signs of peripheral hypoperfusion.

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+ Apyretic, T=37°C.

Paraclinical examinations:

1. Chest X-ray :
Opacity of the right hemifield in favor of atelectasis + uplift of the diaphragmatic dome (Figure 1) .

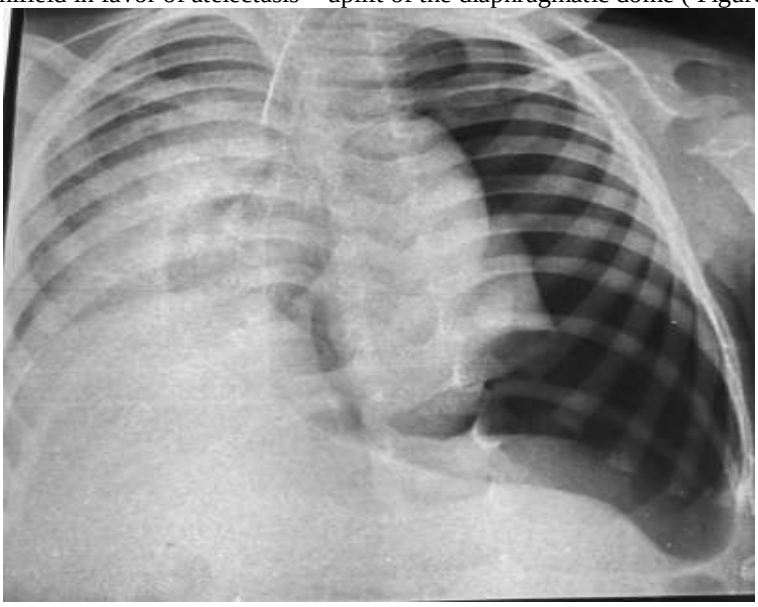

Figure 1:- Chest x-ray showing right atelectasis.

2.Thoracic CT: Mass at the carina level which may be related to a foreign body.
3. Rigid bronchoscopy : performed in an emergency, showed: a bleeding bilateral bronchial mass on contact, with no obvious foreign body.
4.flexible bronchoscopy , performed after stabilization of the patient, has objectified: an obstructive granuloma of the right main bronchus, partially obstructive of the left main bronchus (Figures 2 and 3) .

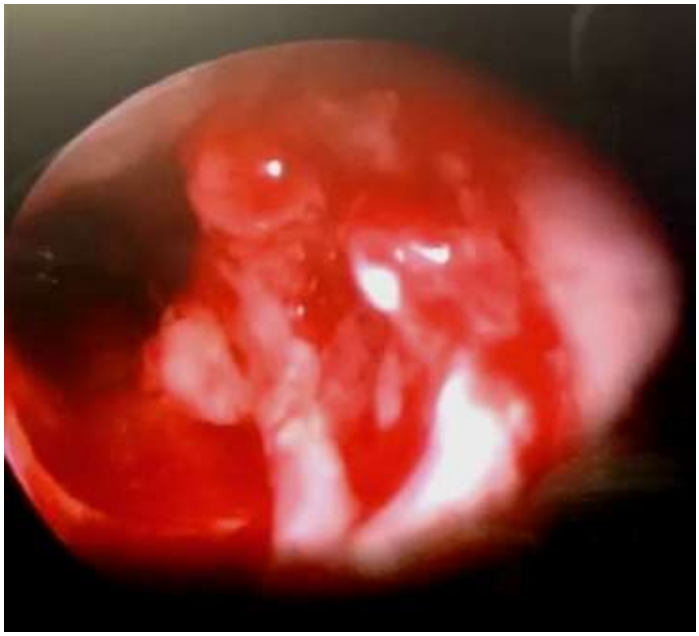

Figure 2:- Partially obstructive inflammatory granuloma of the left main bronchus.

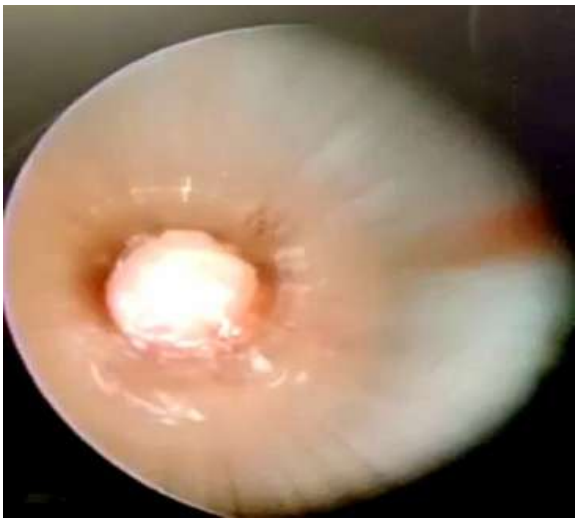

Figure 3:- Totally obstructive inflammatory granuloma From the right main bronchus.

Biopsy with anatomopathological study:
Epitheliogigantocellular granuloma with caseous necrosis in favor of endobronchial tuberculosis.

Treatment :
Antibacillary drugs for 6 months without corticosteroid therapy, with good clinical improvement.

Discussion:-

Endobronchial tuberculosis is a complication of primary pulmonary tuberculosis, and may result from the rupture of an infected lymph node through the bronchial wall or from lymphatic spread to the mucosal surface of the bronchial tree [1].

The clinical picture is not specific [2]: fever, cough, bronchorrhea, wheezing, prolonged exhalation, decrease in respiratory sounds or even acute respiratory distress mimicking the inhalation of a foreign body, the diagnosis of which could be difficult especially in the absence of a history of suffocation by a toy, as is the case for our patient.

Chest CT is superior to standard radiography in determining guiding radiological abnormalities: mediastinal ADP, obstructive emphysema, atelectasis, distortion of the cannula…[3].

Except, only the bronchoscopy which makes it possible to pose the positive diagnosis and to eliminate an inhaled foreign body and the other differential diagnoses. Endobronchial involvement can take various forms: caseous lesions, polyploid masses, granular inflammatory lesions or even a granuloma which remains exceptional.[4] The biopsy reveals an epitheliogigantocellular granuloma with caseous necrosis.

Prolonged treatment with antibacillary drugs is the rule (6 to 9 months), allowing the risk of bronchostenosis to be avoided. The role of corticosteroids is controversial.[5]

Conclusion:

Always think of endobronchial tuberculosis in children with signs of tracheobronchial obstruction and particularly in children who belong to an endemic country. Early diagnosis and treatment can prevent endobronchial complications, particularly bronchostenosis.

Declarations:
Conflicts of interest:
The authors have declared no potential conflict of interest with respect to the research, writing and/or publication of this article.

Funding:
The authors received no financial support for the research, writing and/or publication of this article.

Author contributions :
All authors have contributed to this work from conception, reading and approval of the final version of the manuscript

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