## Endobronchial tuberculosis in paediatric population:

# A bronchoscopy tale of 15 years



Carolina Silva Alves, Marina Alves, Luís Maia Morais, Miguel Ferrão Silveira, Laura Santos, Rui Costa, José Boléo-Tomé, Fernando Rodrigues

Pneumologia - Hospital Professor Doutor Fernando da Fonseca



Amadora, Portugal

#### **BACKGROUND**

- Pulmonary Tuberculosis (TB) in the paediatric population is characterized by enlarged mediastinal lymph nodes which compress or infiltrate the airways resulting in endobronchial tuberculosis (EBTB).
- There is still modest data regarding children EBTB.

#### **METHODS**

**Retrospective Study** 

From January of 2006

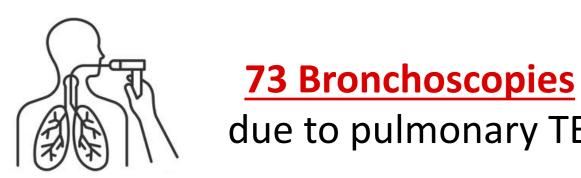
to May of 2022

Patients < 18 years underwent bronchoscopy due to a suspected or confirmed Mycobacteria tuberculosis lung infection

Bronchoscopy findings were classified according to Chung et al classification for tuberculous lesions in adults:

- Actively caseating
- Fibrostenotic
- Edematous-hyperemic
- Tumorous
- Ulcerative
- Granular
- Nonspecific bronchitis

### **RESULTS**



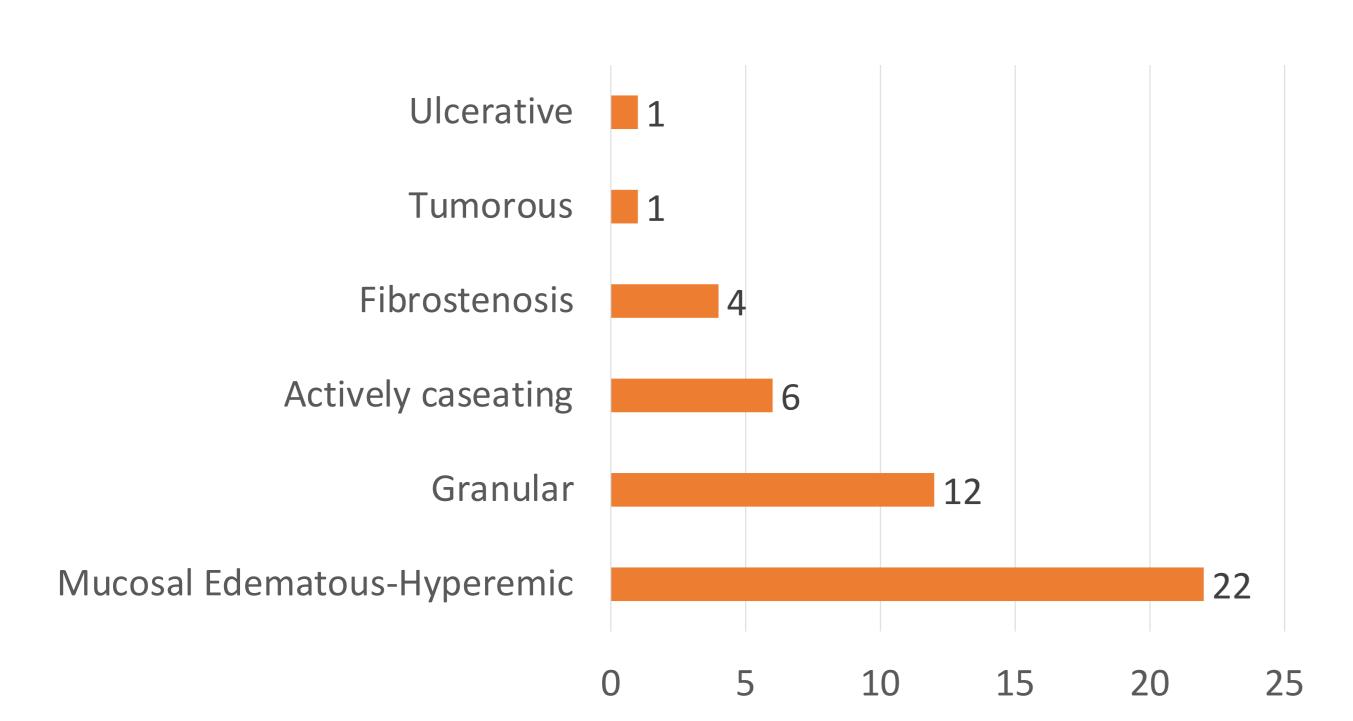
due to pulmonary TB

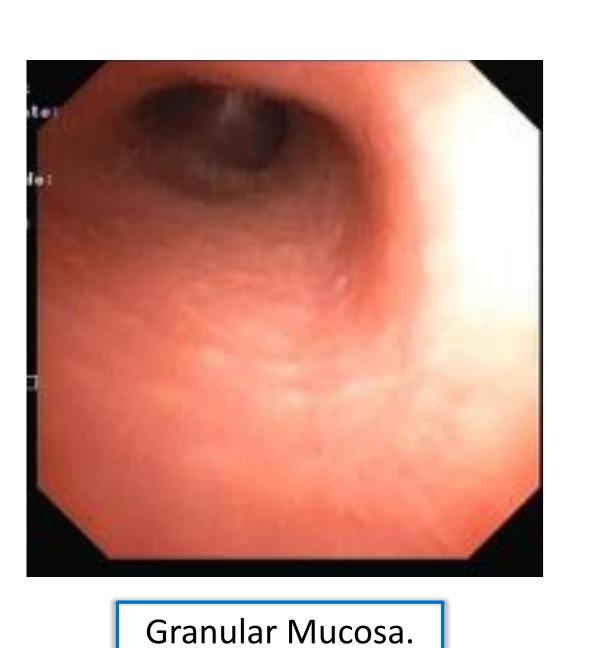
**34** (47%) with **EBTB** included

27 (79%) flexible bronchoscopies 7 (21%) rigid bronchoscopies

Demographic data (n=34)	
Median Age (years)	7 (IQR 3.8-14.2)
Male	59% (n=20)
Tuberculosis epidemiological history	23% (n=7)
HIV patients	18% (n=6)

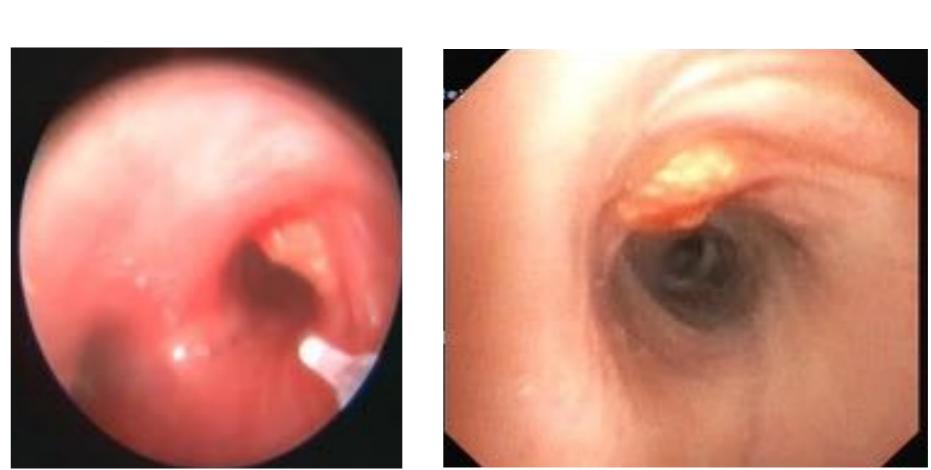








Middle lobe obstruction (tumorous).







Left main bronchus compression Lingula fibrostenosis. by a lymph node.

### **BRONCHOSCOPIC THERAPY:**

- Extrinsic compression was found in 24% (n=8) of the exams;
- cases had significant bronchial stenosis and underwent balloon dilatation with lumen restoration;

Examples of caseating granuloma.

• 6 (18%) patients had endobronchial granulomas  $\rightarrow$  3 had significant stenosis and were removed through laser photocoagulation followed by balloon dilatation with good results.

#### CONCLUSION

- EBTB was present in almost half of the bronchoscopies for TB investigation, being edematous-hyperemic mucosa the most common manifestation.
- Bronchial and segmental steosis was a common complication of EBTB and effective lumen restoration was possible with balloon dilatation.
- The variability of bronchoscopic findings urges for a valid classification for the pediatric population.