

## Image in Medicine

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### Quiz 1

2 years old presented with sudden onset of breathlessness and cough since 1 day.

#### Questions :

- (1) What is the diagnosis?
- (2) What are the common causes of unilateral hyperlucent hemithorax in children?
- (3) What is the role of MinIP CT scan algorithm in such cases?



#### Answers :

(1) Hyperinflation and air trapping is seen in left upper lobe with consolidation in left lower lobe. CT scan of chest was performed which showed a foreign body in left main bronchus (arrow).

(2) There are many factors responsible for unilateral hyperlucent hemithorax in children . Common causes include – airway obstruction (endobronchial foreign body or extrinsic compression), bronchial atresia, congenital lobar emphysema, congenital pulmonary airway malformation, Swyer-James syndrome, pneumothorax, pulmonary agenesis, Scimitar syndrome, poland syndrome.

(3) Minimum intensity projection (MinIP) (Figure B) is a data visualisation algorithm that enables detection of low-density structures. It is optimal reformation technique for airways. It is also helpful for detection of ground-glass opacities and in mosaic attenuation.

### Quiz 2

20 year old female presented with swelling over distal forearm since 2 months.

#### Questions:

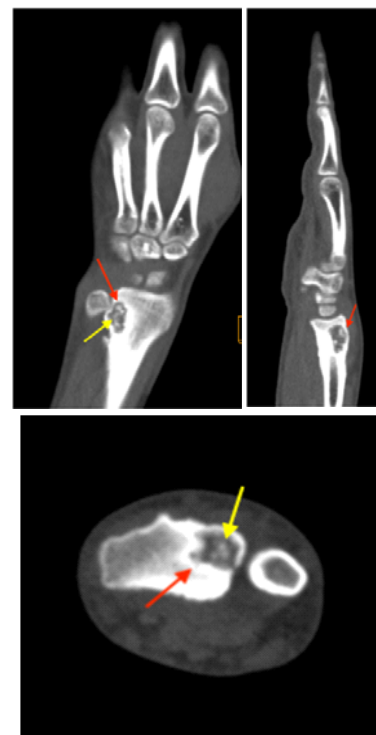
- (1) What is the diagnosis?
- (2) What are the common locations of this lesion?
- (3) What are the common differential diagnosis?

#### Answers :

(1) Well defined expansile osteolytic lesion (red arrow) with rim of reactive sclerosis and internal nidus of calcification (yellow arrow) is seen in distal metaphysis of radius. These imaging findings are in favour of osteoblastoma, which was subsequently confirmed on biopsy .

(2) The common locations of osteoblastoma are posterior elements of spine and metaphysis of long bones.

(3) The most common differential diagnosis is osteoid osteoma, which are usually less than 1.5-2 cm in size, whereas osteoblastomas are larger than 2cm in size.



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