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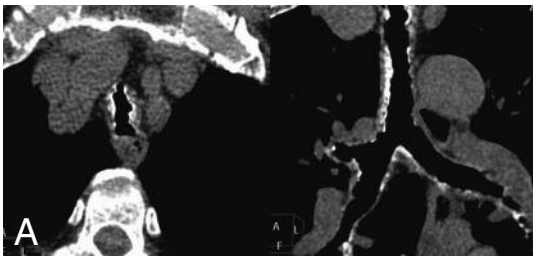
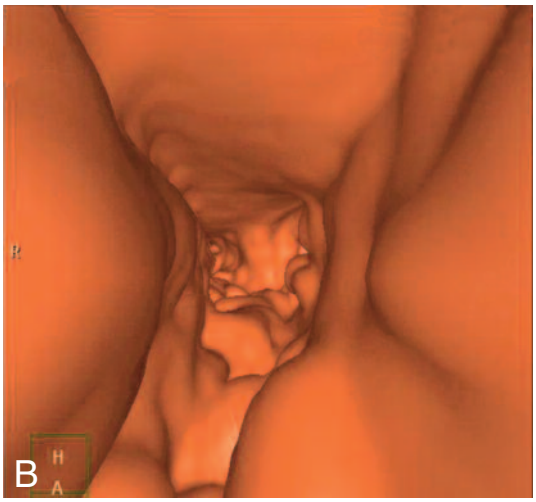
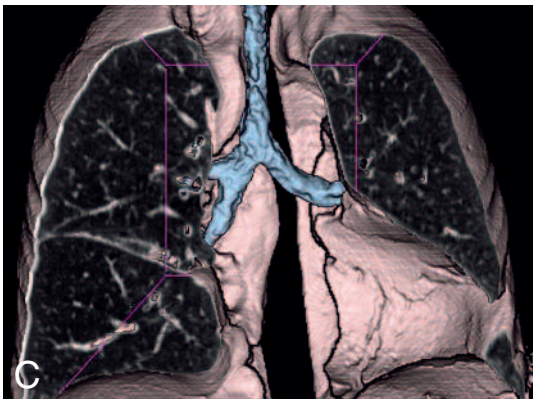
IMAGES IN CLINICAL RADIOLOGY







A 64-slice multidedector CT of tracheobronchopatia osteochondroplastica with virtual bronchoscopy view

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A 65-year-old female presented in our Emergency Department complaining of cough and progressive dyspnea. Plain chest radiography showed long-segment narrowing of the trachea. Multislice computed tomography confirmed the tracheal narrowing and demonstrated multiple nodular calcifications protruding into the visceral lumen, involving also the main and segmental bronchi but sparing the pars membranacea trachealis (Fig. A).

The radiological findings suggested the condition of tracheobronchopatia osteochondroplastica (TO). Diagnosis was confirmed by bronchoscopy, where submucosal nodular excrescences, not extending to the posterior membranaceous tracheal region, were observed: no interventional measures have been undertaken up to now, with laser therapy and nodules endoscopic removal being reported in isolated cases.

Comment

The radiological findings can be considered pathognomonic of this condition and biopsy was not deemed of further help in pathological characterization; should calcified nodules also involve the pars membranacea trachealis other entities can be considered in the differential diagnosis, mainly amyloidosis, and biopsy may be necessary in the differentiation. This clinical case demonstrates the advantage of 64-slice computed tomography (CT) scanner, with software allowing both excellent volume rendered images and two-dimensional (2D) multiplanar images.

Three-dimensional reconstruction (3D) has been specifically planned for airway imaging, allowing virtual bronchoscopic images of great help in the evaluation of bronchial stenoses, mainly of malignant nature, in order to guide "real" bronchoscopy and tissue sampling.

Virtual bronchoscopic view (Fig. B) and SSD-3D CT coronal reconstruction of the trachea (Fig. C) show narrowing of the latero-lateral diameter with multiple nodules.

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