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## Pulmonary puzzle

### ANSWER

From question on page 128

The bronchial biopsy showed normal columnar epithelium along with metaplastic squamous epithelium. Below the mucosa there were nodules of hyaline cartilage showing focal calcification and cancellous bone with thin trabeculae (fig 1D, arrow) and areas of fatty marrow (fig 1D, arrowhead). These features are diagnostic of “tracheobronchopathia osteochondroplastica”.

Tracheobronchopathia osteochondroplastica (TO) is a rare benign condition of unknown aetiology involving the tracheobronchial tree and was first described in 1857. It usually affects adults with equal gender distribution. TO is characterised by the development of multiple osseous and cartilaginous nodules in the submucosa of the trachea and the main bronchi. Typically, these nodules develop in the cartilaginous anterior and lateral parts of the trachea with sparing of the posterior part. The precise incidence and prevalence of this disorder is unknown but autopsy reporting suggests 3/1000. TO may be an incidental diagnosis or patients may present with chronic respiratory symptoms. The abnormal nodules can lead to altering degrees of airway obstruction and can impair clearance of bronchial secretions. CT may show dense submucosal nodules in the trachea and major bronchi with or without calcification with sparing of the posterior wall. Bronchoscopy shows multiple nodular lesions in the above location and the appearances are characteristic. However, these can be misinterpreted. A typical “gritty” feeling on contact of these nodules with the bronchoscope is described. Histology shows variable amount of submucosal cartilaginous and osseous nodules. Bone tissue may be calcified and/or contain haematopoietic bone marrow. This condition usually follows a benign course and in most cases disease progression is undetectable.<sup>1–4</sup>

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