number of patients with a preoperative diagnosis of carcinoid ranged between 51.9% [9] and 86.7% [11], with many series not providing either or both of these data. As a result, a lobectomy or greater resection was necessary on anatomical or diagnostic grounds and led to a low number of sublobar resections in these series. No series compared postoperative morbidity between lobectomy or greater resection and sublobar resection. Owing to the high heterogeneity within and between series, small numbers of peripheral tumours and low reporting rates of disease recurrence and postoperative morbidity, it is difficult to draw conclusions.

There is a lack of comprehensive randomized studies to compare a lobectomy or greater resection and sublobar resection. Although a typical carcinoid is reported as having good long-term disease-free prognosis, there is little objective evidence to show the equivalence or superiority of a lobectomy over sublobar resection in terms of disease recurrence and long-term survival. With an atypical carcinoid, there is insufficient data that can be used for evidence-based practice.

**CLINICAL BOTTOM LINE**

Although a typical (low-grade) carcinoid is reported as having good long-term disease-free prognosis especially without nodal disease, there is little objective evidence to show the equivalence or superiority of a lobectomy or greater resection over sublobar resection in terms of disease recurrence and long-term survival. With an atypical carcinoid, there is insufficient data that can be used for evidence-based practice.

There is a tendency for sublobar resections to be performed in either early stage typical carcinoid patients or patients with preoperative pulmonary function tests that preclude conventional resection. Further randomized studies are needed to assess the postoperative morbidity, long-term survival and disease recurrence between the two approaches.

This current review of the literature suggests that sublobar resection with lymph node dissection for accurate staging can be sufficient for patients with a typical carcinoid. In the case of an atypical carcinoid, the surgical strategy should be based on the lesion and lymph node involvement, and each patient should be assessed fully and apprised by a multidisciplinary team.

Conflict of interest: none declared.

**REFERENCES**


eComment. The definition of neuroendocrine tumour and sublobar resection

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We read with great interest the article by Afoke and colleagues [1]. The authors addressed the question whether a sublobar resection might be equivalent to a lobectomy for surgical management of peripheral carcinoid tumours of the lung. We would like to comment on two important issues with regard to carcinoid and sublobar resections.

Carcinoids are a subgroup of non-small cell lung cancer (NSCLC) with neuroendocrine differentiation according to the World Health Organization (WHO) classification system [2]. A combination of morphologic features, mitotic rate and absence or presence of necrosis are used to classify neuroendocrine tumours [3]. Often, video-thoracoscopic wedge resection is attempted in patients with a peripherally-located pulmonary lesion, if the lesion is more likely to be malignant. The surgical management then depends on the results of the frozen section. The differentiation between atypical carcinoids and large cell neuroendocrine carcinoma during frozen section can be especially challenging for neuroendocrine tumours of the lung. Thus, the intraoperative decision making process for the appropriate oncological treatment can be difficult.

Carcinoids should be dealt with like NSCLC. Thus, sublobar resections should be avoided in patients who can tolerate lobectomies [4]. The term sublobar resection might be too imprecise. Sublobar resections may refer to wedge resections or anatomical segmentectomies. If sublobar resections are carried out, segmentectomies are associated with significantly better cancer-related survival than wedge resections in stage IA NSCLC [5]. In this context, it could be helpful to utilize precise terms and definitions of the surgical resection, so that there is no room for possible misinterpretations or under-treatment.

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References


