

Supplementary data

Table 1: Pre-operative data collection and histological data

<p>General data:</p> <ul style="list-style-type: none">• Gender: W/M• Age: years• Forced Expiratory Volume in one second (FEV1): mL and percent of predicted value (%)• Discovery mode: asymptomatic incident, or presence of symptoms
<p>Medical history:</p> <ul style="list-style-type: none">• Cardiovascular: ischemic heart disease, atrial fibrillation, coronary artery bypass surgery• Thoracic: lung resection surgery, surgical treatment of a pneumothorax• Pulmonary pathology: COPD, overlap syndrome, sleep apnea, pulmonary embolism, tuberculosis and asthma• Obesity: BMI >30• HTA• Diabetes• Smoker status
<p>Type of Pathology:</p> <ul style="list-style-type: none">• Cancer: primary or secondary• Benin• Infectious (tuberculosis, bronchial dilatations, pulmonary aspergillosis)• Degenerative• Congenital
<p>Histology in case of cancer</p> <ul style="list-style-type: none">• Adenocarcinoma• Squamous cell carcinoma• Neuroendocrine carcinoma

- Carcinoid tumor (typical, atypical)
- Metastasis of another cancer
- Large cell carcinoma
- Cystic adenoid carcinoma
- Lymphoma
- Solitary fibrous tumour

Stage of the disease

- TNM (7th edition)
- N1/N2+
- T1, T2, T3, T3, T4
- M1a/M1b

W/M: women/men, BMI: Body Mass Index, COPD: Chronic Obstructive Pulmonary Disease, HTA: hypertension

Table 2: Items collected in the post-operative period

<p>Perioperative complications</p> <ul style="list-style-type: none">• Air leak: in days, prolonged air leak if >7 days• PAF• Pneumopathy: increased congestion and sputum associated with inflammatory biological markers and/or radiographic degradation, and febrile ascension, continued antibiotic prophylaxis as antibiotic therapy• ARDS• Surgical revision: technical defect, post-operative bleeding• Post-operative death
<p>Dindo Clavien Classification</p> <ul style="list-style-type: none">• 0: No deviation from post-operative outcomes• 1: Any deviation from post-operative outcomes, without the use of commonly used drugs, or surgical, endoscopic or radiological intervention• 2: Complication requiring drug treatment, including blood transfusion/plasma or unplanned introduction of parenteral nutrition• 3a: Complication requiring surgical, endoscopic or radiological treatment without the use of general anesthesia• 3b: Same as 3a, under general anesthesia• 4a: Vital complication requiring intensive care with single organ dysfunction• 4b: Same as 4a, with multi-organ dysfunction• 5: Patient's death
<p>Length</p> <ul style="list-style-type: none">• Chest tube• Hospitalization

Visual Analogue Pain Scale

- D1 evaluation: 1 to 10

PAF: postoperative atrial fibrillation, ARDS: Acute respiratory failure syndrome, D1: day one

Table 3: Reasons for diagnosis and cohort patient history

Disease discovery	Lung Cancer: 126/161 (78.2%)
Reasons for diagnosis	-Diagnosis or follow up of another cancer (26.1%) -Incidental discovery (19.9%) -Chronic cough or modified cough (12.5%)
Patient history	-Cardiovascular history: 143 (28.5%) -Thoracic surgery: 49 (9.8%) -Underlying pulmonary pathology: 190 (37.9%) -Hypertension: 206 (41.1%) -Obesity: 78 (15.5%)

Table 4: Causes of conversion (According to Gazala publication in 2011)

<u>Class</u>	<u>Intraoperative condition</u>
Vascular	Wound of the pulmonary artery, pulmonary vein or other vessel
Anatomical	Adhesions, tumor size or location
Lymph Nodes	Bulky, sticky, calcified
Technical	Stapler misfire, equipment failure

Table 5: Histopathological findings

Histopathological findings	Patients (%)
Adenocarcinomas	263 (59.1)
Squamous cell carcinomas	88 (19.8)
Metastases from different locations	54 (12.1)
Carcinoid tumours	18 (4)
Large cell carcinomas	13 (2.9)
Cystic adenoid carcinomas	6 (1.3)
Lymphomas	2 (0.4)
Small cell neuroendocrine carcinoma	1 (0.2)
Isolated fibrous cancer	1 (0.2)
Total	446

Table 6: Univariable analysis for perioperative complications

Variables	ORs, 95% CI	p=
FEV1	0.99, 0.98 to 1	0.19
Age	1.03, 1 to 1.05	0.026
COPD	2.46, 1.44 to 4.19	0.001
Year of procedure	1.44, 1.22 to 1.7	0.0001
Conversion	3.42, 1.79 to 6.54	0.0004

ORs: Odds ratios, FEV1: Forced Expiratory Volume in one second, COPD: Chronic Obstructive Pulmonary Disease

Table 7: Multivariable analysis for conversion and perioperative complications, logistic regression model

Variables (events)	Logistic regression model (events)	ORs, 95% CI	p=
Conversion (44)	Age (44)	1.02, 0.99 to 1.01	0.21
	Year of procedure (44)	0.87, 0.69 to 1.1	0.23
	FEV1 (44)	1.00, 0.99 to 1.02	0.57
	COPD (7)	0.92, 0.32 to 2.7	0.89
	Gender (44)	0.94, 0.47 to 1.89	0.86
	Pulmonary disease (19)	1.69, 0.77 to 3.72	0.18
	Obesity (6)	0.89, 0.36 to 2.25	0.82
Perioperative complication (95)	FEV1 (95)	0.99, 0.98 to 1	0.23
	Age (95)	1.02, 1 to 1.05	0.034
	COPD (26)	1.22, 0.53 to 2.81	0.63
	Year of procedure (95)	1.56, 1.3 to 1.86	0.0001
	Conversion (18)	4.47, 2.21 to 9.05	0.0001
	Pulmonary disease (45)	1.38, 0.69 to 2.76	0.36
	Obesity (8)	0.34, 0.15 to 0.75	0.008
	Gender (95)	0.72, 0.43 to 1.23	0.23

ORs: Odds ratios, FEV1: Forced Expiratory Volume in one second, COPD: Chronic Obstructive Pulmonary Disease