

Online Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Online Supplement Table 1. Definitions or measurement methods for parameters

Parameters		Definition or measurement method
Procedure time [#]	Total time	• From insertion of the bronchoscope through the mouth to the end of the procedures.
	EBUS time	• Time elapsed for EBUS from the insertion of the bronchoscope through the mouth to the retrieval of it.
	EUS time	• Time elapsed for EUS from the insertion of the bronchoscope through the mouth to the retrieval of it.
No. of LN stations [*]		• No. of nodal stations sampled during whole procedure, EBUS time and EUS time were checked.
No. of aspirations		• No. of aspirations performed during whole procedure, EBUS time and EUS time were checked.
Medications		• Amounts of lidocaine, midazolam, and fentanyl used for procedures were checked.
Cardio-respiratory parameters	Baseline	• Baseline diastolic and systolic BP, HR, and SaO ₂ by a pulse oximeter under oxygen flow of 3L/min via nasal prong were measured immediately before procedures
	BP	• Diastolic and systolic BP were measured every 3 min during the procedure (at least once during EBUS and EUS)
	HR	• Measured every 1 min during the procedure
	SaO ₂	• Measured every 1 min during the procedure
	Cough	• Number of coughs were counted during the whole procedure, EBUS time and EUS time
	Hypoxic event	• Number of patients who experienced a hypoxic event (SaO ₂ < 90) were checked.
Irritable movement		• The movement of patients that caused the bronchoscopist to stop the procedure, such as extremity movements or head elevation to resist the procedure
Complications	Major	• Bleeding requiring intervention, pneumothorax, pneumomediastinum, infection, arrhythmia, or any complications requiring admission
	Minor	• Other complications were recorded if noted
Procedure tolerance parameters	Procedure difficulty	• Assessed by the bronchoscopist and a main attendant nurse by depicting on a 10-cm VAS immediately after procedures (0=lowest imaginable difficulty; 10=greatest imaginable difficulty).
	Patient satisfaction	<ul style="list-style-type: none"> • Tolerance of the procedure and four sensations (cough, dyspnea, pain, and nausea); assessed by patients by depicting on a 10-cm VAS (0=not bothered, 10=worst intolerable level). • Willingness to return for a second endoscopic staging if needed was asked to patients (yes or no) • All patient satisfaction parameters were assessed twice. <p>(1. after patients were fully alert and conscious at least 2 hours after the procedure and before leaving the bronchoscopy unit 2. three to five days after the procedure)</p>

LN, lymph node; BP, blood pressure; HR, heart rate; SaO₂, oxygen saturation; VAS, visual analog scale

Basically, we used one needle for EBUS-TBNA and a different needle for EUS-FNA. Needles were flushed with 95% ethanol, saline and air after each aspiration in order to avoid implantation of viable tumor cells to other locations. We changed needles when the use of a needle was impossible due to blood clots or damage.

* Lymph node locations were classified according to an international staging system¹

Reference)

1. Rusch VW, Asamura H, Watanabe H, *et al.* The IASLC lung cancer staging project: A proposal for a new international lymph node map in the forthcoming seventh edition of the TNM classification for lung cancer. *J Thorac Oncol* 2009;4:568-77.

Online supplement Table 2. Mediastinal nodal stations sampled by EBUS-TBNA and EUS-FNA in Group A and Group B

Group	Applied procedures	Sampled lymph node stations, N (number of metastatic stations)											
		1R	1L	2R	2L	3P	4R	4L	5	7	8	9	Total
A	EBUS	4(2)	1(0)	38(10)	1(0)	1(1)	76(15)	40(11)	0(0)	78(15)	0(0)	0(0)	239(54)
	EUS	2(1)	0(0)	0(0)	4(0)	0(0)	0(0)	39(9)	1(1)	18(3)	4(0)	3(2)	71(16)
	Both	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	25(7)	0(0)	18(3)	0(0)	0(0)	43(10)
	EUS only	2(1)	0(0)	0(0)	4(0)	0(0)	0(0)	14(2)	1(1)	0(0)	4(0)	3(2)	28(6)
	Total	6(3)	1(0)	38(10)	5(0)	1(1)	76(15)	54(13)	1(1)	78(15)	4(0)	3(2)	267(60)
B	EUS	12(1)	1(0)	2(0)	8(2)	3(1)	2(1)	50(5)	6(0)	54(9)	11(2)	4(1)	153(22)
	EBUS	1(0)	0(0)	33(7)	2(1)	1(0)	76(16)	12(0)	0(0)	75(13)	0(0)	0(0)	200(37)
	Both	1(0)	0(0)	1(0)	1(1)	0(0)	2(1)	5(0)	0(0)	52(9)	0(0)	0(0)	62(11)
	EBUS only	0(0)	0(0)	32(7)	1(0)	1(0)	74(15)	7(0)	0(0)	23(4)	0(0)	0(0)	138(26)
	Total	12(1)	1(0)	34(7)	9(2)	4(1)	76(16)	57(5)	6(0)	77(13)	11(2)	4(1)	291(48)