

Table SI. Demographic and clinicopathological characteristics of the patients.

Patient ID	Sex	Age, years	Pathological diagnosis
001	Male	70	Invasive carcinoma. Combined with immunohistochemical staining, it is consistent with mixed adenocarcinoma: 60% acinar adenocarcinoma and 40% colloid carcinoma. No definite vascular tumor thrombus or perineural invasion was found. Immunohistochemical results: Ki-67 (<10% positive), p53 (moderately positive), TTF-1 (focally positive), CK7 (positive), NapsinA (focally positive), EGFR (negative), CK20 (negative), CDX-2 (negative), CK5/6 (negative), p63 (negative), p40 (negative). No carcinoma involvement at bronchial resection margin. No metastatic carcinoma in regional lymph nodes (0/17), grouped as follows: Parabronchial lymph nodes, 0/2; group 5, 0/3; group 7, 0/1; group 8, 0/1; group 9, 0/1; group 10, 0/5; group 11, 0/4.
002	Female	65	Invasive adenocarcinoma, composed of 70% acinar pattern, 25% lepidic pattern and 5% papillary pattern. No definite vascular tumor thrombus, perineural invasion or pleural invasion was detected. Immunohistochemistry: p53(++), TTF-1(+), CK7(+), NapsinA(+), EGFR(-), CK20(-), CDX-2(-), CK5/6(-), p63(-), Ki-67 (~10% positive). No residual carcinoma at bronchial resection margin. No lymph node metastasis (0/28). Classification: Parabronchial nodes, 0/1; station 2, 0/6; station 4, 0/1; station 7, 0/10; station 10, 0/4; station 11, 0/6.
003	Female	72	Invasive carcinoma. Combined with immunohistochemical staining, it is consistent with multiple neuroendocrine neoplasms, most likely low-grade neuroendocrine tumor and atypical carcinoid, accompanied by multiple intrapulmonary dissemination. No definite vascular tumor thrombus or perineural invasion was observed. Pleural invasion was noted. No carcinoma was found at the resection margin. Immunohistochemistry: Ki-67 (~5% positive), p53 (scattered positive), TTF-1(+), CK7(+), NapsinA (focally positive), EGFR(-), CK5/6(-), p63(-), CgA(+), Syn(+) and CD56(+).
004	Male	70	Invasive moderately differentiated acinar adenocarcinoma. No definite vascular tumor thrombus, perineural invasion or pleural invasion was identified. No carcinoma involvement was seen at bronchial stump and pulmonary resection margin. No metastatic carcinoma was found in regional lymph nodes (0/5). Details: Station 2, 0/3; station 3, 0/1; station 4, 0/1; station 10, 0/1.
005	Female	68	Invasive moderately differentiated adenocarcinoma (100% acinar pattern). No definite vascular tumor thrombus or perineural invasion is noted. No definite pleural invasion confirmed by elastic fiber staining. Immunohistochemistry: Ki-67 (<10% positive), p53 (wild-type), TTF-1(+), CK7(+), NapsinA(+), EGFR (focally strongly positive), CK20(-), CDX-2(-) and p63 (-). No tumor involvement at resection margins. No metastasis in regional lymph nodes (0/28). Station 2, 0/5; station 4, 0/7; station 7, 0/11; station 10, 0/2; station 11, 0/3.
006	Female	74	Invasive moderately differentiated adenocarcinoma, predominantly acinar pattern. No definite vascular tumor thrombus, perineural invasion or pleural invasion was found. No carcinoma at resection margins. No carcinoma involvement at bronchial stump. No metastatic carcinoma in regional lymph nodes (0/19). Station 2, 0/3; station 4, 0/5; station 7, 0/5; station 8, 0/4; station 11, 0/2.
007	Male	72	Moderately differentiated adenocarcinoma: 70% acinar pattern and 30% micropapillary pattern. No definite vascular tumor thrombus, perineural invasion or pleural invasion was observed. No carcinoma was detected at resection margins and bronchial stump. No lymph node metastasis (0/6). Station 4, 0/1; station 7, 0/2; station 9, 0/1; station 10, 0/1; station 11, 0/1.

008	Male	65	Moderately differentiated adenocarcinoma (60% papillary pattern, 35% acinar pattern and 5% micropapillary pattern). Free tumor cell clusters are seen within air spaces. No definite vascular tumor thrombus or perineural invasion is identified. Special staining is required to confirm pleural invasion. Immunohistochemistry: Ki-67 (20% positive), p53(++), TTF-1(+), CK7(+), NapsinA(+), EGFR (strongly positive), CK20(-), CDX-2(-), CK5/6(-), p63(-), p40(-). No carcinoma involvement at bronchial resection margin. No metastatic carcinoma in regional lymph nodes (0/15). Parabronchial nodes, 0/1; station 4, 0/3; station 5, 0/2; station 6, 0/1; station 7, 0/1; station 10, 0/5; station 11, 0/2.
009	Female	69	Invasive moderately differentiated acinar adenocarcinoma. No vascular tumor thrombus (confirmed by CD31, CD34 and D2-40 staining) or perineural invasion was detected. No pleural invasion was confirmed by elastic fiber staining. Immunohistochemistry: Ki-67 (~10% positive), p53(+), TTF-1(+), CK7(+), NapsinA(+), EGFR(+), CK20 (focally positive), CDX-2(-), CK5/6 (focally positive), p63 (focally positive), p40(-). No carcinoma involvement at bronchial stump. No metastatic carcinoma in regional lymph nodes (0/18). Parabronchial nodes, 0/1; station 2, 0/5; station 4, 0/3; station 7, 0/6; station 10, 0/1; station 11, 0/2.
010	Male	74	Invasive moderately differentiated adenocarcinoma: 80% acinar pattern, 10% lepidic pattern and 10% papillary pattern. No definite vascular tumor thrombus or perineural invasion was found. No pleural invasion was confirmed by elastic fiber staining. Immunohistochemistry: Ki-67 (~30% positive in active area), p53 (scattered positive), TTF-1(+), CK7(+), NapsinA(+), EGFR (moderately positive), CK20(-), CDX-2(-), CK5/6(-), p63(-), p40(-). No tumor involvement at resection margins. No regional lymph node metastasis (0/12). Station 2, 0/2; station 4, 0/6; station 7, 0/2; station 10, 0/2.