### Supplementary

#### Subgroup analysis: numerical analysis of different centers (Only in surgical patients)

| Characteristics | Xi'an (n=13) | Chongqing (n=7) |
|-----------------|-------------|-----------------|
| **RECIST** | | |
| ORR | 10 (76.9%) | 4 (57.1%) |
| Postoperative pathology results | | |
| MPR | 8 (61.5%) | 2 (28.6%) |
| pCR | 4 (30.7%) | 2 (28.6%) |
| **Extent of Surgery** | | |
| Lobectomy | 7 (53.8%) | 4 (57.1%) |
| Bilobectomy | 1 (7.7%) | 1 (14.3%) |
| Sleeve resection/bronchoplasty | 4 (30.7%) | 1 (14.3%) |
| Pneumonectomy | 1 (7.7%) | 1 (14.3%) |
| **Surgical method** | | |
| VATS/da Vinci | 7 (53.8%) | 7 (100%) |
| Conversion to thoracotomy | 2 (15.4%) | 0 |
| Thoracotomy | 4 (30.7%) | 0 |

ORR, overall response rate; pCR, pathological complete response; MPR, major pathological response.

#### Subgroup analysis: numerical analysis of different drug treatments (Only in surgical patients)

| Characteristics | Sintilimab (n=9) | Nivolumab (n=4) | Pembrolizumab (n=7) |
|-----------------|-----------------|-----------------|---------------------|
| **RECIST** | | | |
| ORR | 3 (33.3%) | 4 (100%) | 7 (100%) |
| Postoperative pathology results | | | |
| MPR | 2 (22.2%) | 2 (50%) | 4 (57.1%) |
| pCR | 1 (11.1%) | 2 (50%) | 3 (42.8%) |
| **AE** | | | |
| Hyperthyroidism | 1 (11.1%) | | |
| Rash | | | 1 (14.3%) |
| **Extent of surgery** | | | |
| Lobectomy | 5 (55.6%) | 2 (50%) | 4 (57.1%) |
| Bilobectomy | 1 (11.1%) | | 1 (14.3%) |
| Sleeve resection/bronchoplasty | 2 (22.2%) | 2 (50%) | 1 (14.3%) |
| Pneumonectomy | 1 (11.1%) | | 1 (14.3%) |
| **Surgical method** | | | |
| VATS/da Vinci | 6 (66.7%) | 4 (100%) | 4 (57.1%) |
| Conversion to thoracotomy | 1 (11.1%) | | 1 (14.3%) |
| Thoracotomy | 2 (22.2%) | | 2 (28.6%) |

ORR, overall response rate; pCR, pathological complete response; MPR, major pathological response; AE, adverse event.

#### Subgroup analysis: numerical analysis of different cycles (Only in surgical patients)

| Characteristics | 1–2 (n=6) | 3-4 (n=14) |
|-----------------|----------|-----------|
| **RECIST** | | |
| ORR | 3 (50%) | 11 (78.6%) |
| Postoperative pathology results | | |
| MPR | 3 (50%) | 7 (50%) |
| pCR | 1 (16.7%) | 5 (35.7%) |
| **AE** | | |
| Hyperthyroidism | 1 (16.7%) | | |
| Rash | 1 (16.7%) | 1 (7.1%) |
| **Extent of surgery** | | |
| Lobectomy | 3 (50%) | 8 (57.1%) |
| Bilobectomy | | 2 (14.3%) |
| Sleeve resection/bronchoplasty | 3 (50%) | 2 (14.3%) |
| Pneumonectomy | | 2 (14.3%) |
| **Surgical method** | | |
| VATS/da Vinci | 5 (83.3%) | 9 (64.2%) |
| Conversion to thoracotomy | | 2 (14.3%) |
| Thoracotomy | 1 (16.7%) | 3 (21.4%) |

RECIST, Response Evaluation Criteria In Solid Tumors; MPR, major pathological response; pCR, pathological complete response.