

Supplemental Tables for:

Efficacy of second-line chemotherapy in patients with previously treated advanced thymic carcinoma: a retrospective analysis of 191 patients from NEJ023 Study.

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Table S1. Patient characteristics according to second-line chemotherapy regimen.

| | Platinum doublet (n = 110) <i>n</i> (%) | Other multi-drug chemotherapy (n = 26) <i>n</i> (%) | Monotherapy (n = 55) <i>n</i> (%) | <i>p</i> |
|----------------------|---|---|---|----------|
| Age median (range) | 58.5 (16–79) | 61.5 (22–78) | 62 (13–83) | 0.844 |
| Sex | | | | 0.541 |
| Male | 77 (70.0) | 21 (80.8) | 39 (70.9) | |
| Female | 33 (30.0) | 5 (19.2) | 16 (29.1) | |
| ECOG PS | | | | 0.360 |
| 0-1 | 100 (90.9) | 24 (92.3) | 49 (89.1) | |
| 2-3 | 7 (6.4) | 2 (7.7) | 5 (9.1) | |
| Unknown | 3 (2.7) | 0 (0.0) | 1 (1.8) | |
| Smoking status | | | | 0.130 |
| Never | 35 (31.8) | 7 (26.9) | 22 (40.0) | |
| Former/current | 75 (68.2) | 19 (73.1) | 31 (56.4) | |
| Unknown | 0 (0.0) | 0 (1.0) | 2 (3.6) | |
| Histology | | | | 0.376 |
| SQC | 80 (72.7) | 18 (69.2) | 37 (67.3) | |
| NEC | 9 (8.2) | 5 (19.2) | 9 (16.4) | |
| Other | 21 (19.1) | 3 (11.5) | 9 (16.4) | |
| Masaoka-Koga staging | | | | 0.562 |
| Stage III | 4 (3.6) | 0 (0.0) | 2 (3.6) | |

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|---------------------------------|-----------|-----------|-----------|-------|
| Stage IVa | 33 (30.0) | 6 (23.1) | 15 (27.3) | |
| Stage IVb | 50 (45.5) | 17 (65.4) | 28 (50.9) | |
| Postoperative recurrence | 23 (20.9) | 3 (11.5) | 10 (18.2) | |
| WHO TNM staging | | | | 0.403 |
| Stage III | 2 (1.8) | 0 (0.0) | 3 (5.5) | |
| Stage IV | 85 (77.3) | 23 (88.5) | 42 (76.4) | |
| Postoperative recurrence | 23 (20.9) | 3 (11.5) | 10 (18.2) | |
| First-line chemotherapy regimen | | | | 0.001 |
| Platinum doublet | 56 (50.9) | 18 (69.2) | 40 (72.7) | |
| Other multi-drug chemotherapy | 53 (48.2) | 8 (30.8) | 11 (20.0) | |
| Monotherapy | 1 (0.9) | 0 (0.0) | 4 (7.3) | |

Abbreviations: ECOG; Eastern Cooperative Oncology Group, PS; performance status, SQC; squamous cell carcinoma, NEC; neuroendocrine carcinoma, WHO; World Health Organization

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Table S2. Relationship between first-line and second-line chemotherapy

| First-line | n | RR (%) | Interval (range; months)* | Second-line | n | RR (%) |
|-------------|------|-------------------|---------------------------|------------------------|----|--------|
| CBDCA+PTX | 47 | 35.9 | 2.9 (0.2 - 35.5) | All | 47 | 11.9 |
| | 8 | 42.6 | | CBDCA+PTX | 8 | 28.6 |
| | 8 | 25.0 | | DTX | 8 | 0 |
| | 6 | 40.0 | | ADOC | 6 | 0 |
| | 6 | 60.0 | | S-1 | 6 | 16.7 |
| | 5 | 20.0 | | AMR | 5 | 0 |
| | 2 | 50.0 | | CDDP+VP-16 | 2 | 50.0 |
| | 1 | 0 | | CDDP+CPT-11 | 1 | 0 |
| | 7 | 25.0 | | Other platinum doublet | 7 | 16.7 |
| | 1 | 0 | | Other multi-drug | 1 | 0 |
| 3 | 33.3 | Other monotherapy | 3 | 33.3 | | |
| CDDP+VP-16 | 16 | 56.3 | 2.5 (0.9 - 25.4) | All | 16 | 21.4 |
| | 6 | 33.3 | | ADOC | 6 | 33.3 |
| | 3 | 66.7 | | CBDCA+PTX | 3 | 33.3 |
| | 2 | 100 | | CDDP+VP-16 | 2 | 0 |
| | 1 | 0 | | AMR | 1 | 100 |
| | 3 | 100 | | Other platinum doublet | 3 | 33.3 |
| | 1 | 0 | | Other monotherapy | 1 | 0 |
| | 1 | 0 | | | | |
| CBDCA+VP-16 | 12 | 27.3 | 5.4 (1.1 - 13.1) | All | 12 | 30.0 |
| | 4 | 50.0 | | CBDCA+PTX | 4 | 50.0 |

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|------------------------|----|------|-------------------|------------------------|----|------|
| | 1 | 0 | | ADOC | 1 | 0 |
| | 1 | 0 | | AMR | 1 | 0 |
| | 1 | 0 | | DTX | 1 | 0 |
| | 4 | 33.3 | | Other platinum doublet | 4 | 33.3 |
| | 1 | 0 | | Other multi-drug | 1 | 0 |
| CDDP+CPT-11 | 12 | 81.8 | 4.7 (1.0 - 18.9) | All | 12 | 20.0 |
| | 5 | 75.0 | | CBDCA+PTX | 5 | 0 |
| | 2 | 100 | | AMR | 2 | 0 |
| | 2 | 50.0 | | DTX | 2 | 0 |
| | 2 | 100 | | S-1 | 2 | 100 |
| | 1 | 100 | | Other platinum doublet | 1 | 0 |
| Other platinum doublet | 27 | 18.5 | 2.2 (0.5 - 23.2) | All | 27 | 11.5 |
| | 7 | 0 | | CBDCA+PTX | 7 | 33.3 |
| | 6 | 33.3 | | S-1 | 6 | 33.3 |
| | 2 | 0 | | ADOC | 2 | 0 |
| | 9 | 22.2 | | Other platinum doublet | 9 | 11.1 |
| | 1 | 0 | | Other multi-drug | 1 | 0 |
| | 2 | 50.0 | | Other monotherapy | 2 | 0 |
| ADOC | 56 | 40.0 | 4.2 (0.8 - 101.7) | All | 56 | 28.6 |
| | 29 | 35.7 | | CBDCA+PTX | 29 | 24.0 |
| | 4 | 50.0 | | CDDP+CPT-11 | 4 | 50.0 |
| | 3 | 66.7 | | S-1 | 3 | 66.7 |
| | 2 | 100 | | ADOC | 2 | 50.0 |

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|------------------|----|------|------------------|------------------------|----|------|
| | 1 | 100 | | CDDP+VP-16 | 1 | 100 |
| | 1 | 0 | | DTX | 1 | 0 |
| | 10 | 30.0 | | Other platinum doublet | 10 | 22.2 |
| | 1 | 100 | | Other multi-drug | 1 | 0 |
| | 4 | 20.0 | | Other monotherapy | 5 | 40.0 |
| Other multi-drug | 16 | 40.0 | 7.5 (0.7 - 33.0) | All | 16 | 7.1 |
| | 3 | 0 | | CBDCA+PTX | 3 | 0 |
| | 2 | 50.0 | | CDDP+VP-16 | 2 | 50.0 |
| | 1 | 0 | | CDDP+CPT-11 | 1 | 0 |
| | 1 | 100 | | S-1 | 1 | 0 |
| | 3 | 66.7 | | Other platinum doublet | 3 | 0 |
| | 5 | 20.0 | | Other multi-drug | 5 | 0 |
| | 1 | 100 | | Other monotherapy | 1 | 0 |
| Monotherapy | 5 | 40.0 | 4.0 (0.4 - 15.7) | All | 5 | 20.0 |
| | 1 | 0 | | CBDCA+PTX | 1 | 0 |
| | 1 | 0 | | DTX | 1 | 0 |
| | 3 | 66.7 | | Other monotherapy | 3 | 33.3 |

Abbreviations: RR: response rate, CBDCA: carboplatin, PTX: paclitaxel, S-1: tegafur/gimeracil/oteracil, ADOC: adriamycin/cisplatin/vincristine/cyclophosphamide, DTX: docetaxel, AMR: amrubicin, CDDP: cisplatin, VP-16: etoposide, CPT-11: irinotecan

*The period between the finish date of first line chemotherapy and the start date of second line chemotherapy

Table S3. WHO TNM classification

T-primary tumor

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|----|---|
| TX | Primary tumor cannot be assessed |
| T0 | No evidence of primary tumor |
| T1 | Tumor completely encapsulated |
| T2 | Tumor invades pericapsular connective tissue |
| T3 | Tumor invades into neighboring structures, such as pericardium, mediastinal pleura, thoracic wall, great vessels and lung |
| T4 | Tumor with pleural or pericardial dissemination |

N-regional lymph nodes

| | |
|----|--|
| NX | Regional lymph nodes cannot be assessed |
| N0 | No regional lymph node metastasis |
| N1 | Metastasis in anterior mediastinal lymph nodes |
| N2 | Metastasis in other intrathoracic lymph nodes excluding anterior mediastinal lymph nodes |
| N3 | Metastasis in scalene and/or supraclavicular lymph nodes |

M-distant metastasis

| | |
|----|---------------------------------------|
| MX | Distant metastasis cannot be assessed |
| M0 | No distant metastasis |
| M1 | Distant metastasis |

Stage grouping

| | | | |
|----------|----|----|----|
| Stage I | T1 | N0 | M0 |
| Stage II | T2 | N0 | M0 |

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|-----------|-------|-------|----|
| Stage III | T1 | N1 | M0 |
| | T2 | N1 | M0 |
| | T3 | N0,1 | M0 |
| Stage IV | T4 | Any N | M0 |
| | Any T | N2,3 | M0 |
| | Any T | Any N | M1 |

Abbreviations: WHO: World Health Organization

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Table S4. Univariate and multivariate analyses for overall survival

| Variants | Cut-off | n | mOS [95%CI] | Univariate | | Multivariate | |
|---------------------------------|------------------------------|-----|------------------|---------------------|----------|---------------------|----------|
| | | | | HR [95%CI] | <i>p</i> | HR [95%CI] | <i>p</i> |
| Age (years) | <75 | 170 | 21.7 [16.1-25.7] | 1 | | | |
| | ≥75 | 21 | 28.4 [17.5-41.8] | 0.946 [0.518-1.594] | 0.845 | | |
| Sex | Female | 54 | 15.0 [7.7-28.4] | 1 | | 1 | |
| | Male | 137 | 24.1 [18.5-29.5] | 0.674 [0.467-0.991] | 0.045 | 0.691 [0.466-1.046] | 0.080 |
| ECOG PS | 2–3 | 28 | 7.7 [4.2-12.7] | 1 | | 1 | |
| | 0–1 | 148 | 25.7 [21.7-29.6] | 0.342 [0.215-0.569] | <0.001 | 0.359 [0.225-0.599] | <0.001 |
| Histology | Other | 33 | 17.9 [10.1-25.5] | 1 | | | |
| | SQC | 135 | 24.1 [18.5-30.2] | 0.629 [0.399-1.034] | 0.067 | | |
| | NEC | 23 | 13.7 [7.0-40.4] | 0.857 [0.451-1.608] | 0.631 | | |
| Masaoka stage | IVb | 95 | 16.8 [12.5-22.5] | 1 | | 1 | |
| | IVa | 54 | 26.6 [16.9-41.4] | 0.562 [0.367-0.847] | 0.006 | 0.605 [0.386-0.932] | 0.022 |
| | Postoperative recurrence/III | 42 | 31.8 [15.8-40.4] | 0.681 [0.430-1.051] | 0.083 | 0.653 [0.401-1.034] | 0.069 |
| WHO TNM stage | IV | 150 | 21.4 [16.1-25.5] | 1 | | | |
| | Postoperative recurrence/III | 41 | 31.8 [18.5-41.5] | 0.847 [0.538-1.284] | 0.443 | | |
| First-line chemotherapy regimen | Other multi-drug regimen | 72 | 22.4 [14.1-28.4] | 1 | | | |
| | Monotherapy | 5 | 42.7 [12.3-70.4] | 0.724 [0.219-1.776] | 0.516 | | |
| | Platinum doublet | 114 | 21.7 [16.9-29.2] | 0.970 [0.679-1.394] | 0.867 | | |

Abbreviations: mOS; median overall survival, HR; Hazard rate, 95%CI; 95% confidence interval, ECOG; Eastern Cooperative Oncology Group, PS; performance status, WHO; World Health Organization, NEC; neuroendocrine carcinoma, SQC; squamous cell carcinoma