Supplementary materials for

**Neoadjuvant Chemotherapy with CAPOX versus Chemoradiation for Locally Advanced Rectal Cancer with Uninvolved Mesorectal Fascia (CONVERT): Initial Results of a Phase III Trial**

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# eTable 1. Pathological findings for patients with low rectal cancer with tumors located within 5 cm from the anal verge

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Treatment Group, No. (%)** | | ***P* value** |
| **Neoadjuvant  Chemotherapy （n=108）** | **Neoadjuvant Chemoradiotherapy （n=105）** |
| Pathological T category |  |  | 0·901 |
| ypT0 | 12 (11·1) | 15 (14·3) |  |
| ypTis | 1 (0·9) | 2 (1·9) |  |
| ypT1 | 5 (4·6) | 5 (4·8) |  |
| ypT2 | 37 (34·3) | 31 (29·5) |  |
| ypT3 | 49 (45·4) | 42 (40·0) |  |
| ypT4 | 4 (3·7) | 10 (9·5) |  |
| Pathological N category |  |  | 0·008 |
| ypN0 | 74 (68·5) | 88 (83·8) |  |
| ypN1 | 28 (25·9) | 14 (13·3) |  |
| ypN2 | 6 (5·6) | 3 (2·9) |  |
| Pathological complete response |  |  | 0·361 |
| Yes | 11 (10·2) | 15 (14·3) |  |
| No | 97 (89·8) | 90 (85·7) |  |
| ypT0-2N0M0 |  |  | 0·847 |
| Yes | 50 (46·3) | 50 (47·6) |  |
| No | 58 (53·7) | 55 (52·4) |  |
| Tumor regression grade |  |  | ＜0·001 |
| TRG- 0 | 11 (10·2) | 15 (14·3) |  |
| TRG- 1 | 14 (13·0) | 26 (24·8) |  |
| TRG- 2 | 44 (40·7) | 43 (41·0) |  |
| TRG- 3 | 39 (36·1) | 19 (18·1) |  |
| Missing | 0 | 2 (1·9) |  |
| TRG 0-1 |  |  | ＜0·001 |
| Yes | 25 (23·2) | 41 (39·0) |  |
| No | 83 (76·8) | 62 (59·0) |  |
| Missing | 0 | 2 (1·9) |  |

# eTable 2. Summary of surgical outcomes for patients with low rectal cancer with tumors located within 5 cm from the anal verge.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Treatment Group, No. (%)** | | | ***P* value** |
| **Neoadjuvant Chemotherapy（n=108）** | **Neoadjuvant**  **Chemoradiotherapy （n=105）** | |
| Surgical procedures |  | |  | 0·738 |
| Anterior resection | 88 (81·5) | | 84 (80·0) |  |
| Abdominoperineal resection | 13 (12·0) | | 12 (11·4) |  |
| Intersphincteric resection | 6 (5·6) | | 7 (6·7) |  |
| Others | 1 (0·9) | | 2 (1·9) |  |
| Sphincter preservation |  | |  | 0·890 |
| Yes | 95 (88·0) | | 93 (88·6) |  |
| No | 13 (12·0) | | 12 (11·4) |  |
| Preventive diverting ileostomy |  | |  | 0·860 |
| Yes | 31 (28·7) | | 29 (27·6) |  |
| No | 77 (71·3) | | 76 (72·4) |  |
| Resection limits |  | |  | > ·999 |
| R0 | 107 (99·1) | | 104 (99·1) |  |
| R1 | 1 (0·9) | | 1 (0·9) |  |
| Postoperative morbidity（≤30 days） | 26 (24·1) | | 30 (28·6) | 0·456 |
| Anastomotic leak | 6 (5·6) | | 6 (5·7) | 0·960 |
| Clinical fistula | 0 | | 2 (1·9) | 0·242 |
| Abscess | 1 (0·9) | | 2 (1·9) | 0·618 |
| Bowel obstruction | 3 (2·8) | | 1 (1·0) | 0·622 |
| Intestinal function disorder | 7 (6·5) | | 8 (7·6) | 0·746 |
| Septicemia | 0 | | 1 (1·0) | 0·493 |
| Wound infection | 7 (6·5) | | 11 (10·5) | 0·295 |
| Urinary complications | 1 (0·9) | | 1 (1·0) | > ·999 |
| Others | 3 (2·8) | | 4 (3·8) | 0·719 |
| Postoperative Mortality（≤60 days） | 0 | | 0 | > ·999 |

# eTable 3. Grade 1-2 safety summary during neoadjuvant therapy

Abbreviations: GI, gastrointestinal·

|  |  |  |  |
| --- | --- | --- | --- |
| Event | **Treatment Group, No. (%)** | | |
| **Neoadjuvant**  **Chemotherapy**  **（n=300）** | **Neoadjuvant Chemoradiotherapy**  **（n=289）** | **P value** |
| Grade 1-2 | Grade 1-2 |
| Any event | 174 (58·0) | 163 (56·4) | 0·70 |
| Hematologic |  |  |  |
| Leukopenia | 95 (31·7) | 114 (39·4) | 0·05 |
| Anemia | 44 (14·6) | 43 (14·9) | 0·94 |
| Thrombocytopenia | 43 (14·3) | 18 (6·2) | 0·001 |
| GI |  |  |  |
| Nausea | 75 (25·0) | 38 (13·1) | <0·001 |
| Vomiting | 43 (14·3) | 24 (8·3) | 0·02 |
| Diarrhea | 12 (4·0) | 20 (6·9) | 0·11 |
| Laboratory |  |  |  |
| Aminotransferase | 28 (9·3) | 26 (9·0) | 0·89 |
| Alkaline phosphatase | 5 (1·7) | 5 (1·7) | 0·95 |
| Bilirubin | 8 (2·7) | 22 (7·6) | 0·006 |
| Genitourinary | 0 | 10 (3·5) | <0·001 |
| Neurologic | 63 (21·0) | 18 (6·2) | <0·001 |
| Cardiac | 3 (1·0) | 0 | 0·25 |
| Mucositis | 0 | 0 | >0·99 |
| Allergic reaction | 0 | 0 | >0·99 |
| Palmar-plantar erythrodysaesthesia | 12 (4·0) | 19 (6·6) | 0·16 |
| Alopecia | 4 (1·3) | 0 | 0·12 |
| Other events | 11 (3·7) | 0 | <0·001 |

# eTable 4. Grade 3-4 safety summary during neoadjuvant therapy

Abbreviations: GI, gastrointestinal·

|  |  |  |  |
| --- | --- | --- | --- |
| Event | **Treatment Group, No. (%)** | | |
| **Neoadjuvant**  **Chemotherapy**  **（n=300）** | **Neoadjuvant Chemoradiotherapy**  **（n=289）** | **P value** |
| Grade 3-4 | Grade 3-4 |
| Any event | 37 (12·3) | 24 (8·3) | 0·11 |
| Hematologic |  |  |  |
| Leukopenia | 9 (3·0) | 14 (4·8) | 0·25 |
| Anemia | 7 (2·3) | 3 (1·0) | 0·37 |
| Thrombocytopenia | 16 (5·3) | 3 (1·0) | 0·007 |
| GI |  |  |  |
| Nausea | 3 (1·0) | 0 | 0·25 |
| Vomiting | 1 (0·3) | 0 | >0·99 |
| Diarrhea | 4 (1·3) | 1 (0·3) | 0·37 |
| Laboratory |  |  |  |
| Aminotransferase | 2 (0·7) | 0 | 0·50 |
| Alkaline phosphatase | 0 | 0 | >0·99 |
| Bilirubin | 0 | 3 (1·0) | 0·12 |
| Genitourinary | 0 | 3 (1·0) | 0·12 |
| Neurologic | 3 (1·0) | 0 | 0·25 |
| Cardiac | 1 (0·3) | 0 | >0·99 |
| Mucositis | 0 | 0 | >0·99 |
| Allergic reaction | 0 | 0 | >0·99 |
| Palmar-plantar erythrodysaesthesia | 1 (0·3) | 1 (0·3) | >0·99 |
| Alopecia | 0 | 0 | >0·99 |
| Other events | 0 | 0 | >0·99 |

# eTable 5. Treatment compliance with chemotherapy in neoadjuvant

# chemotherapy group and neoadjuvant chemoradiotherapy group

Abbreviations: CT, chemotherapy; SD, standard deviation.

a Patients in nCT group should received neoadjuvant chemotherapy with four cycles of CAPOX and adjuvant chemotherapy with four cycles of CAPOX· Patients in nCRT group should received adjuvant chemotherapy with six cycles of CAPOX·

|  |  |  |  |
| --- | --- | --- | --- |
| **Compliance** | **Treatment Group, No. (%)** | | |
| **Neoadjuvant**  **Chemotherapy**  **（n=235）** | **Neoadjuvant Chemoradiotherapy**  **（n=222）** | **P value** |
| Cycles completed (mean ± SD) | 7·48±0·97 | 4·82±1·54 | <0·001 |
| Completed all cycles of CTa | 173 (73·6) | 122 (55·0) | <0·001 |
| With full dose of CT | 124 (52·8) | 98 (44·1) | 0·07 |
| Missed no more than two cycles of CT | 48 (20·4) | 59 (26·6) | 0·12 |
| Missed at least three cycles of CT | 14 (6·0) | 41 (18·5) | <0·001 |