|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Modality** | **Sample Size** | **CRITERIA** | **Ulcer/****Gastritis** | **Nausea** | **Vomiting** | **Anorexia** | **Abdominal****Pain** | **Anemia** | **Neutropenia** | **Thrombocytopenia** | **ALP** | **AST** | **ALT** | **Bili** | **Alb** |
| Ben-Josef | CRT | 46 | Not specific to iCCA |
| Chen\* | CRT | 35 | RTOG 2.0 | NR | 0 | 0 | 1 | NR | 0 | 0 | 1 | 1 | 0 | 1 | 0 | NR |
| Zeng\* | CRT | 29 | RTOG | NR | NS | NS | NS | NR | NR | NS | NS | NS | NR | NS | NR |
| Cho | CRT | 64 | RTOG (GI)CTCAE 3.0 (Laboratory) | 0 | Grading Unknown | Grading Unknown | 5 | 7 | NR | NR | NR | 0 | 0 | 0 |  5 | NR |
| Hong\*\* | PT | 37 | CTCAE 3.0 | 1 | NS | NS | NS | NS | NS | NS | NS | Liver failure G3: 1 |  1 | NR |
| Smart\*\* | Mixed | 66 | CTCAE 4.0 | NR | 2 | 0 | 2 | 2 | 0 | 5 | 5 | NR | NR | NR | NR |
| Tao\*\* | Mixed | 79 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Yoon |  | 6 | NR |
| Hijazi | SBRT | 6 | Not specific to iCCA. |
| Ibarra | SBRT | 11 | CTCAE 3.0 | G3 complication： 7%. But the details were not specified. |
| Kasuya | PT | 27 | CTCAE 4.0 | 0 | 0 | 0 | NR | NR | NR | NR | NR | NR | NR | NR |  |
| Kim | Mixed | 25 | CTCAE | NR | 0 | 0 | 0 | NR | 0 |  3 |  5 | NR | NR | NR | NR |
| Kozak | SBRT | 25 | Not specific to iCCA |
| Liu | SBRT | 12 | Not specific to iCCA |
| Ohkawa\*\*\* |  | 20 | CTCAE 4.0 | NS | 0 | NR |  4 | NR | NR | 1 | 0 | NR | NR |
| Shimizu\*\*\* | PT | 42 | CTCAE 4.0 | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Sasaki | NR | 14 | Not specified to iCCA |
| Shen | SBRT | 28 | CTCAE 4.0 | 1 |  1 | 1 | 2 | NR | 1 | 1 | 1 | 1 | 1 | 2 |  2 |  1 |
| Sumiyoshi | CRT | 7 | NR | 1 severe gastritis. |
| Tse | CRT | 10 | CTCAE 3.0 | NR | 0 | NR | NR | NR | NR | NR | 0 | 2 | 1 | 4 |

**S. Table 3.2**: adverse events of external radiation therapy. iCCA: intrahepatic cholangiocarcinoma. CRT: conventional dose radiation therapy. CTCAE: Common Terminology Criteria for Adverse Events. NR: not reported by original studies. NS: data was not shown in the table because the outcome was reported by another larger study with overlapping patient sample. PT: proton therapy. RTOG: Radiation Therapy Oncology Group. SBRT: stereotactic body radiation therapy. Mixed: external radiation therapy involving more than one subtype of RT.