**Supplementary Methods**

**Searching Strategy**

***PubMed***

P: “early gastric cancer\*”[Title/Abstract] OR “early gastric carcinoma\*”[Title/Abstract] OR “early stomach cancer\*”[Title/Abstract] OR “early stage gastric cancer\*”[Title/Abstract] OR “early stage stomach cancer\*”[Title/Abstract]

I: “Gastrectomy”[MeSH] OR “Surger\*”[Title/Abstract] OR “Surgical”[Title/Abstract] OR “Gastrectom\*”[Title/Abstract] OR “Operation\*”[Title/Abstract]

C: “Endoscopic Mucosal Resection”[MeSH] OR “Endoscopic Resection”[Title/Abstract] OR “Endoscopic Submucosal Dissection\*”[Title/Abstract]

***Web of Science***

P: TS = (“early gastric cancer\*” OR “early gastric carcinoma\*” OR “early stomach cancer\*” OR “early stage gastric cancer\*” OR “early stage stomach cancer\*”)

I: TS = (“gastrectomy” OR “surger\*” OR “surgical” OR “gastrectom\*” OR “operation\*”)

C: TS = (“endoscopic mucosal resection\*” OR “endoscopic resection\*” OR “Endoscopic submucosal dissection\*”)

***EMBASE***

P: 'early gastric cancer'/exp OR 'early gastric carcinoma\*':ab,ti OR 'early stomach cancer\*':ab,ti OR 'early stage gastric cancer\*':ab,ti OR 'early stage stomach cancer\*':ab,ti

I: 'gastrectomy'/exp OR surger\*:ab,ti OR surgical:ab,ti OR gastrectom\*:ab,ti OR operation\*:ab,ti

C: 'endoscopic mucosal resection'/exp OR 'endoscopic submucosal dissection'/exp OR 'endoscopic resection':ab,ti

**Supplementary Table 1: Quality assessments for including studies (Newcastle–Ottawa Scale).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study IDs** | **Selection** | **Comparability** | **Outcome** | **Quality score** |
| **Representativeness of exposed cohort** | **Selection of non-exposed cohort** | **Ascertainment of exposure** | **Outcome of interest was not present at start** | **Control for important factors** | **Assessment of outcome** | **Length of follow up** | **Adequacy of follow up** |
| Katsube *et al* [22] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Esaki *et al*[16] | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 |
| Suzuki *et al*[23] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Kim *et al*[24] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Toya *et al*[25] | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 |
| Hoteya *et al*[26] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Yamanouchi *et al*[27] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Jeon *et al*[28] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Iwai *et al*[17] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Jeon *et al*[29] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Choi *et al*[30] | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 |
| Harada *et al*[31] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Kawata *et al*[32] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Sumiyoshi *et al*[33] | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 5 |
| Eom *et al*[34] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |
| Suzuki *et al*[35] | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 8 |
| Zhou *et al*[36] | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 6 |



**Supplementary Figure 1:** Forest plot comparing 5-year disease-free survival in patients who received additional gastrectomy and non-gastrectomy treatment. CI: Confidence interval; M-H: Mantel-Haenszel.



**Supplementary Figure 2**: Forest plot showing the pooled hazard ratio of overall survival in elderly patients. CI: Confidence interval; SE: Standard error.



**Supplementary Figure 3:** Funnel plots for publication bias for odds ratios of 5-year overall survival (A), 5-year disease-specific survival (B), and 5-year disease-free survival (C), and hazard ratio of overall survival (D). OR: Odds ratio; HR: Hazard ratio; SE: Standard error.