Supplementary table 1: Distribution of patient characteristics after pair-matching (n=20 for each group).

| Characteristic               | Elderly cohort (≥65 years) | Matched cohort (18-65 years) | p-value |
|------------------------------|-----------------------------|------------------------------|---------|
|                              | Median (range)              | Median (range)               |         |
| Age                          | 74 (66 – 89)                | 47.5 (28 – 63)               | <0.001  |
| Sex                          |                             |                              |         |
| Male                         | 8                           | 9                            | 0.749   |
| Female                       | 12                          | 11                           |         |
| Smoking                      |                             |                              |         |
| Non-smoker                   | 16                          | 16                           | 1.000   |
| Smoker                       | 4                           | 4                            |         |
| ECOG                         |                             |                              |         |
| 0                            | 17                          | 17                           | 1.000   |
| 1-2                          | 3                           | 3                            |         |
| CCI                          | 2                           | 17                           | 1.000   |
|                             | 3-8                         | 3                            |         |
| T stage                      |                             |                              |         |
| T1/T2                        | 9                           | 13                           | 0.204   |
| T3/T4                        | 11                          | 7                            |         |
| N stage                      |                             |                              |         |
| N0                           | 10                          | 11                           | 0.752   |
| N1/N2/N3                     | 10                          | 9                            |         |
| M stage                      |                             |                              |         |
| M0                           | 20                          | 19                           | 0.311   |
| M1                           | 0                           | 1                            |         |
| Localization                 |                             |                              |         |
| Parotid gland                | 17                          | 10                           | 0.060   |
| Submandibular gland          | 2                           | 6                            |         |
| Minor salivary glands        | 1                           | 4                            |         |
| Grading                      |                             |                              |         |
| G1/G2                        | 8                           | 15                           | 0.054   |
| G3/G4                        | 10                          | 5                            |         |
| Unknown                      | 2                           | 0                            |         |
| Histology                    |                             |                              |         |
| Adenocarcinoma               | 11                          | 3                            | 0.048   |
| Squamous cell carcinoma      | 2                           | 1                            |         |
| Mucoepidermoid carcinoma     | 1                           | 5                            |         |
| Acinic cell carcinoma        | 2                           | 2                            |         |
| Adenoid cystic carcinoma     | 1                           | 7                            |         |
| Carcinoma in pleomorphic adenoma | 0              | 1                        |         |
| Others                       | 3                            | 16                           |         |
| Concept                      |                             |                              |         |
| Definitive                   | 5                           | 1                            | 0.077   |
| Adjuvant                     | 15                          | 19                           |         |
| Chemotherapy                 |                             |                              |         |
| No chemotherapy              | 12                          | 16                           | 0.168   |
| Chemotherapy                 | 8                           | 4                            |         |

*a*undifferentiated carcinoma (n=1), lymphoepithelial carcinoma (n=1), myoepithelial carcinoma (n=1)

*b*liposarcoma
Supplementary table 2: Toxicity results after radiotherapy or chemoradiotherapy of elderly patients with salivary gland cancer according to the CTCAE v5.0.

| Acute (n=29) | n  | %  |
|--------------|----|----|
| CTCAE 1/2    | 20 | 69.0 |
| CTCAE 3      | 9  | 31.0 |
| CTCAE 4/5    | 0  | 0.0  |

| Chronic (n=24) | |
|----------------|-----------------|
| CTCAE 0        | 1  | 4.2 |
| CTCAE 1 – 2    | 20 | 83.3 |
| CTCAE 3        | 3  | 12.5 |
| CTCAE 4/5      | 0  | 0.0  |

Supplementary Table 3: Toxicity results consisting various (chemo)radiotherapy-related adverse reactions according to the Common Terminology Criteria for Adverse Events (CTCAE) v5.0.

| Acute grade | 0 | 1 | 2 | 3 | 4 | 5 |
|-------------|---|---|---|---|---|---|
| dermatitis  | 1 | 10| 16| 2 | 0 | 0 |
| dysphagia   | 16| 9 | 3 | 1 | 0 | 0 |
| nausea      | 28| 1 | 0 | 0 | 0 | 0 |
| mucositis   | 8 | 4 | 12| 5 | 0 | 0 |
| xerostomia  | 16| 12| 1 | 0 | 0 | 0 |
| dysgeusia   | 16| 9 | 4 | 0 | 0 | 0 |
| pain        | 14| 7 | 8 | 0 | 0 | 0 |
| cytopenia\(^a\) | 14| 9 | 3 | 2 | 0 | 0 |
| weight loss\(^b\) | 10| 2 | 5 | 0 | 0 | 0 |
| acute kidney injury\(^c\) | 19| 4 | 1 | 0 | 0 | 0 |

| Chronic (n=24) | |
|----------------|-----------------|
| skin toxicity  | 13 | 8 | 2 | 1 | 0 | 0 |
| dysphagia      | 17 | 5 | 2 | 0 | 0 | 0 |
| mucositis      | 22 | 0 | 1 | 1 | 0 | 0 |
| xerostomia     | 3  | 19| 2 | 0 | 0 | 0 |
| dysgeusia      | 9  | 13| 2 | 0 | 0 | 0 |
| pain           | 18 | 4 | 0 | 2 | 0 | 0 |
| cytopenia\(^d\) | 18| 2 | 1 | 0 | 0 | 0 |

\(^a\)unknown in 1 case
\(^b\)unknown in 12 cases
\(^c\)missing in 5 cases
\(^d\)missing in 3 cases