Squamous cell carcinoma of the head and neck: ESMO Clinical Recommendations for diagnosis, treatment and follow-up

incidence
The crude incidence of squamous cell carcinoma of the head and neck (SCCHN) in the European Union is 34.6/100 000, the mortality is 13.7/100 000/year. More than 90% of the head and neck malignancies are squamous cell carcinomas.

diagnosis
Pathologic diagnosis should be made according to the World Health Organization classification from a surgical biopsy.

staging and risk assessment
Routine staging includes physical examination, chest X-ray, head and neck endoscopy, and head and neck computed tomography (CT) scan or magnetic resonance imaging (MRI). A thoracic CT scan may be included to rule out metastatic disease.

Squamous head and neck cancer should be staged according to the tumor–node–metastasis system and be grouped into the following categories:

<table>
<thead>
<tr>
<th>Stage</th>
<th>T</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>T1</td>
<td>N0</td>
<td>M0</td>
</tr>
<tr>
<td>II</td>
<td>T2</td>
<td>N0</td>
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<tr>
<td>III</td>
<td>T3</td>
<td>N0</td>
<td>M0</td>
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<tr>
<td></td>
<td>T1, T2, T3</td>
<td>N1</td>
<td>M0</td>
</tr>
<tr>
<td>IV</td>
<td>T4</td>
<td>N0, N1</td>
<td>M0</td>
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<tr>
<td></td>
<td>Any T, N2, N3</td>
<td>M0</td>
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<tr>
<td></td>
<td>Any T, any N</td>
<td>M1</td>
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</table>

T4 tumors are subdivided into T4a resectable and T4b unresectable. Stage IV is subdivided into stages IVa and IVb accordingly, and stage IVc for metastatic disease.

treatment plan
A multidisciplinary treatment schedule should be established in all cases. The patient’s nutritional status must be corrected and maintained. Dental rehabilitation is indicated before radiotherapy.

reseactable tumors
Treatment depends on primary tumor location and extension.

In early stage (I–II), either surgery or radiotherapy (external radiotherapy or brachytherapy) gives similar locoregional control probability. However, this is based only on retrospective studies as there are no randomized trials.

Standard options for advanced resectable tumors are surgery with postoperative radiotherapy or with postoperative chemoradiotherapy with single-agent platinum for patients with high-risk features (extracapsular extension and R1 resection) [I, A].

Neo-adjuvant chemotherapy followed by radiotherapy allows for organ preservation in advanced larynx and hypopharynx cancer in patients otherwise requiring total laryngectomy [I, A]. This mode of treatment has no impact on disease-free or overall survival [I, A]. In one randomized trial, concurrent chemoradiotherapy achieved higher larynx preservation rates.

The role of induction chemotherapy has been reconsidered since the introduction of taxane–platinum-based combinations.

unresectable tumors
Chemoradiotherapy is recommended [I, A]. This modality is superior to radiotherapy alone for response rate, disease-free, and overall survival, although with increased toxicity.

Platinum-based regimens remain the standard chemotherapy for concurrent chemoradiotherapy.

Radiotherapy given concomitantly with cetuximab has demonstrated a survival benefit versus radiotherapy alone in a trial including both resectable and unresectable patients.

In randomized trials, induction chemotherapy followed by radiotherapy has shown no benefit in comparison with radiotherapy alone. However, in one trial with long-term follow-up, neo-adjuvant chemotherapy obtained a survival benefit among unresectable patients. Recent trials suggest that neo-adjuvant chemotherapy with a taxane–platinum-based combination improves survival outcomes.

local regional and metastatic recurrence
For most patients palliative chemotherapy is the standard option. Weekly methotrexate may be considered as the accepted treatment [I, B]. Although combination chemotherapy
(cisplatin, 5-fluorouracil or taxanes) produces higher response rates than single-agent methotrexate, no survival benefit has been demonstrated [II, B].

**follow-up**

Treatment response should be evaluated by clinical examination and CT scan or MRI of head and neck depending on the initial procedure. The optimal approach to the posttreatment surveillance of patients with SCCHN is still under discussion. The aim of follow-up is the early detection of potentially curable locoregional recurrence and second tumors. The results of physical examination will determine further investigations, such as CT scan, MRI, ultrasonography, and endoscopic examinations with biopsies. In the follow-up, special attention should be paid to the treatment sequelae and comorbidities. Chest X-ray may be included. Evaluation of thyroid function in patients with irradiation to the neck is recommended at 1, 2, and 5 years.

**note**

Levels of evidence [I–V] and grades of recommendation [A–D] as used by the American Society of Clinical Oncology are given in square brackets. Statements without grading were considered justified standard clinical practice by the experts and the ESMO faculty.

**literature**


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