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SFORL GUIDELINES

Initial staging of squamous cell carcinoma of the oral cavity, larynx and pharynx (excluding nasopharynx). Part 2: Remote extension assessment and exploration for secondary synchronous locations outside of the upper aerodigestive tract. 2012 SFORL guidelines

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KEYWORDS
Squamous cell carcinoma;
Oral cavity;

Summary
Objectives: This report presents the French Society of ORL (SFORL) guidelines for exploration for remote metastasis and synchronous second cancer in initial staging of head and neck squamous cell carcinoma.

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Pharynx;
Larynx;
Initial staging;
Metastasis;
Synchronous secondary location;
CT;
MRI;
FDG-PET/CT;
Flexible endoscopy of the esophagus

Materials and methods: An exhaustive literature review was analyzed by a multidisciplinary work-group.
Results: The thorax is the most frequent location of remote metastases and synchronous second cancer outside of the upper aerodigestive tract. Thoracic CT is recommended as first-line examination in all cases (grade B). 18-FDG PET/CT is recommended when the thoracic CT image is doubtful or in case of high metastatic risk (grade B), for the detection of non-pulmonary remote metastasis. Esophageal exploration is recommended in case of significant risk of synchronous esophageal cancer (hypopharyngeal or oropharyngeal tumor, chronic alcohol intoxication) (grade B). The reference examination is flexible endoscopy of the upper digestive tract (grade B).
Conclusion: The present grade B recommendations rationalize the roles of the various first-line radiological and endoscopic examinations for remote metastasis and synchronous second cancer, so as to limit the number of examinations performed, thereby reducing the time needed for initial staging.

Pre-treatment assessment of squamous cell carcinoma of the oral cavity, larynx and pharynx (excluding the nasopharynx) is controversial. Part 1 of the present guideline dealt with initial local and cervical lymph-node assessment. Part 2 deals with assessment of remote extension and synchronous second cancer outside of the upper aerodigestive tract.

The first section presents the main anatomic locations of remote metastasis and means of detection. Section 2 presents the two most frequent synchronous tumor locations: lung and esophagus. Frequencies, risk factors and means of detection are analyzed.

Guidelines based on levels of evidence are presented for each entity; when the level of evidence is insufficient, a professional consensus is put forward.

Remote extension assessment (exploration for remote metastasis)

Exploration for remote metastasis: SFORL guidelines:

- systematic thoracic CT (Grade B);
- 18FDG-PET/CT in elevated metastatic risk (stages III and IV with multiple or low-lying adenopathy) or in case of inconclusive thoracic CT image (professional consensus);
- chest X-ray is not recommended in these indications (Grade B);
- systematic liver US scan, bone scintigraphy or cerebral CT scan are not recommended. (professional consensus).

There have been no studies clearly determining the rate of metastasis at the time of discovery of the primary tumor, but the incidence would appear to be fairly low. Remote metastasis generally leads to palliative treatment adapted to a poor prognosis. Thus, discovery of remote metastasis at the time of diagnosis impacts management of the primary tumor. If there is any risk of metastasis, exploration should be implemented.

Between 7% and 10% of patients show metastatic evolution during treatment [1—4]. Data from these studies were analyzed to assess relative risk according to metastatic location and to determine diagnostic strategy.

The main risk factors for remote metastasis are well-established [1,2,4—10]:

- regional lymph-node extension, regardless of T stage, with risk correlating to N stage;
- tumor volume, with metastasis risk correlating to T stage;
- head and neck location, with higher risk associated with hypopharyngeal tumor.

The most frequent remote metastatic location is the pulmonary parenchyma (45—55%), followed by bone (3—10%) and liver (< 5%) [2,4,11]. In almost a third of cases, metastasis involves several locations at once.

In the literature, pulmonary metastasis and a possible synchronous second pulmonary primary are often explored for in a single analysis. These two different pathologies may present in the same form, as rounded parenchymatous nodules. The existence of several synchronous pulmonary nodules does not always prove metastasis: several primary pulmonary tumors may coexist, sometimes with differing histology [12]; histology fails to differentiate between the two entities in the case of squamous cell carcinoma [13]. Thoracic CT has consistently proved better than plain chest X-ray in terms of sensitivity and specificity in detecting suspect pulmonary nodules [14—21]. Not all pulmonary nodules are cancerous, even when synchronous with head and neck cancer. Several studies have shown the interest of 18FDG-PET coupled to CT (18FDG-PET/CT) in differentiating suspect images found on CT alone [22,23].

Extra-pulmonary metastasis is not systematically associated with pulmonary metastasis. In case of high metastatic risk (stages III or IV with multiple or low-lying adenopathy), 18FDG-PET/CT is recommended whatever the thoracic CT findings, to avoid subjecting the patient to potentially tiring, toxic or mutilating treatment not adapted to disease extension (heavy surgery, potentialized radiation therapy). 18FDG-PET/CT has the advantage of providing full-body exploration with excellent sensitivity. In a meta-analysis comprising 1276 patients, mean sensitivity and specificity