clinical recommendations

Nasopharyngeal cancer: ESMO Clinical Recommendations for diagnosis, treatment and follow-up

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incidence
The age-standardized incidence (per 100 000) of nasopharyngeal cancer (NPC) in Europe is between 0.1 and 2.2. In endemic areas, such as Southern China, the incidence is much higher at 26.9. There is an intermediate incidence in populations in the Mediterranean basin.

diagnosis
Definitive diagnosis is made by endoscopic guided biopsy of the primary nasopharyngeal tumor. The histologic type should be classified according to World Health Organization classification.

staging and risk assessment
NPC is clinically staged according to the International Union Against Cancer (UICC) and American Joint Committee on Cancer (AJCC) staging system (Table 1).

Routine staging procedures include history, physical examination including cranial nerve examination, complete blood cell count, serum biochemistry (including liver function test), chest X-ray, nasopharyngoscopy, computed tomography (CT) scan or magnetic resonance imaging (MRI) of nasopharynx and base of skull and neck. MRI is preferred if available [III, B].

Imaging for distant metastases including isotope bone scan and CT scan of chest and upper abdomen could be considered for at-risk subsets (node positive, especially N3 stage) and for those patients with clinical or biochemical abnormalities detected [III, B]. The use of positron emission tomography is under investigation and findings seem promising.

Both the pre-treatment and post-treatment plasma/serum load of Epstein–Barr viral DNA has been shown to be of prognostic value [III, B].

treatment
Radiation therapy (RT) is the mainstay of treatment and is an essential component of curative-intent treatment of nondisseminated NPC. Stages I and IIA disease are treated by RT alone, while stage III and IVA, B disease are treated by RT with concurrent chemotherapy [I, A]. Concurrent chemotherapy could also be considered for stage IIB disease [III, B].

Radiation therapy is targeted to the primary tumor and adjacent regions considered at risk of microscopic spread from the tumor and to both sides of the neck. Elective nodal irradiation is recommended for N0 stage disease. The consensus is that a total dose of 70 Gy is needed for eradication of gross tumor and 50 Gy for elective treatment of potential risk sites. To minimize the risk of late toxicity (particularly to adjacent neurological structures), fractional dose >2 Gy per daily fraction and excessive acceleration with multiple fractions >1.9 Gy/fraction should be avoided [III, A]. Intensity-modulated RT may offer improvement in local tumor control [III, B], and reduction in radiation xerostomia in early-stage disease [II, B].

The standard agent used in concurrent chemotherapy-RT is cisplatin [I, A].

Even though adjuvant chemotherapy on its own has not been documented to confer survival advantage, adjuvant cisplatin and fluorouracil combined with concurrent cisplatin-RT may be beneficial.

Induction chemotherapy has been shown to improve disease-free survival and may be considered in locally advanced disease although it is not seen as standard treatment [II, B].

follow-up
Follow-up for patients includes periodic examination of the nasopharynx and neck, cranial nerve function and evaluation of systemic complaints to identify distant metastasis. Evaluation
of thyroid function in patients with irradiation to the neck is recommended.

treatment of recurrent or metastatic disease

Small local recurrences are potentially curable and the main issue is choice of the most appropriate therapeutic options, which include nasopharyngectomy, brachytherapy, radiosurgery, stereotactic RT, intensity-modulated RT, or a combination of surgery and RT, with or without concurrent chemotherapy. Treatment decisions are tailored to the specific situation of individual cases, taking into consideration the volume, location and extent of the recurrent tumor [III, B].

Regional recurrence is managed by radical neck dissection if resectable [III, B].

In metastatic NPC, palliative chemotherapy should be considered for patients with adequate performance status. Platinum-5 fluorouracil combination regimens are commonly used as first line therapy. Other active agents include paclitaxel, docetaxel, gemcitabine, capcitabine, irinotecan, vinorelbine, ifosfamide, doxorubicin and oxaliplatin, which can be used as single agents or in combination [III, C].

notes

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.

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literature