ABSTRACT

Introduction

The results of the last meta-analysis confirm the role of concurrent chemoradiotherapy as a standard treatment for locally advanced NPC. In this paper, we report our experience with neoadjuvant chemoradiotherapy (CRT) in locally advanced NPC, in a non-endemic population.

Methods and Materials

In the present study, we included patients having histological confirmed NPC, staged II-IV according to 2002 AJCC stage classification (fine art). Epidermoid carcinoma (EC) and nasopharyngeal carcinoma (NPC) were considered. The patients were enrolled in a randomized controlled trial. The patients were treated with CRT, with neoadjuvant chemoradiotherapy (CRT(NACT)). Dose modifications were allowed for neoadjuvant CRT based on hematologic status and toxicity. Radiation treatment consisted of 70 Gy in 35 fractions, over 7 weeks to all known sites of disease and 50 Gy in 25 fractions, including the uninvolved nodes. Planned clinical lymphnodes were supplemented with injection boost. Objective response rate (ORR) represented the primary endpoint, and it could be defined as the proportion of patients whose best response was either partial or complete (PR or CR). Secondary endpoints included disease control rate (DCR), defined as the proportion of patients whose best response was either PR or CR or stable disease (SD), incidence of grades 3–4 adverse events, as well as disease-free survival (DFS) and overall survival (OS).

RESULTS

From March 2004 to June 2008, 40 patients were enrolled. Twenty-nine (72%) patients were males and 11 (27%) patients were females with a median age of 52.5 years (range 30–77). EOG/morphone used was paclitaxel and/or liposomal vincristine (75%). The final radiation treatment was delivered as a dose of 70 Gy in 35 fractions over 7 weeks with a median follow-up of 22 months. In the present series, the 2-year overall survival rate was 82 ± 9% and 2-year disease-free survival was 77 ± 6% (median follow-up 22 months). The 2-year local control rate was 95 ± 6% (95% CI 87–100) for neck and/or regional site. At the end of CRT, patients were evaluated for the following results: 12 patients (30%) achieved clinical and imaging CR; 24 patients (60%) achieved a PR or SD; 7 patients (17.5%) had partial or non-reversible toxicities. Objective response rate was 50% (95% CI 35–65), while disease control rate was 95% (95% CI 87–100). Table summarizes tumour characteristics and a list of adverse toxicities with reference to WHO criteria.

In the present study, the use of induction CRT resulted in a 5% improvement in disease-specific survival rate (p = 0.052) at 5 years, while no significant difference was found in the overall survival rates. Our results also confirmed the role of concurrent CRT in advanced NPC. The proportion of SD patients was rather acceptable (80%). In our experience the regimen was well tolerated and good patients compliance; no toxic deaths were recorded. Acute toxicity was acceptable and reversible in most patients. In conclusion, NACT with CCRT(EPI) followed by concurrent CCRT(IV) is a safe and effective treatment for non-endemic population affected by locoregionally advanced NPC: this approach needs further phase III trials.

REFERENCES