



Latar belakang : Karsinoma nasofarings merupakan salah satu kanker kepala dan leher di Indonesia dengan frekuensi tertinggi. Karsinoma nasofarings mempunyai karakteristik dengan gejala awal yang sering tidak terdiagnosis. Keluhan utama adalah pembesaran kelenjar leher dengan gejala hidung, telinga, mata, tenggorok, dan keterlibatan saraf kranial. Terapi pilihan adalah radioterapi, kemoterapi dapat ditambahkan untuk menaikkan hasil terapi. Baik keadaan karena tumor atau terapi dapat menurunkan status fungsional. Kombinasi radioterapi ditambah kemoterapi mempunyai toksisitas yang lebih berat dan menurunkan status fungsionalnya daripada radioterapi saja. Penurunan status fungsional dapat menurunkan kualitas hidup penderita karsinoma nasofarings.

Tujuan : (1) Menentukan perbedaan kualitas hidup penderita karsinoma nasofarings antara yang mendapat radioterapi dengan kombinasi radioterapi ditambah kemoterapi pascaterapi 3 bulan. (2) Menentukan respon terapi antara radioterapi dengan kombinasi radioterapi ditambah kemoterapi.

Hipotesis : (1) Kualitas hidup penderita karsinoma nasofarings pascaterapi 3 bulan yang mendapat kombinasi radioterapi ditambah kemoterapi memiliki rerata skor *Short Form-36* lebih rendah dibanding dengan radioterapi. (2) Kombinasi radioterapi ditambah kemoterapi berespon lebih baik dibanding dengan radioterapi.

Rancang penelitian : kohort prospektif.

Lokasi penelitian : RSUP Dr Sardjito Yogyakarta.

Sampel : Penderita karsinoma nasofarings yang terdiagnosis dengan biopsi dengan hasil histopatologi suatu keganasan menurut WHO dimasukkan dalam penelitian ini. Kelompok radioterapi sebanyak 31 orang dan kelompok radioterapi ditambah kemoterapi sebanyak 29 orang. Dosis radioterapi 1 fraksi 1,8 sampai 2 Gy/hari seminggu 5 fraksi sampai mencapai dosis total 66-70 Gy. Kemoterapi ditambahkan dengan 5-fluorouracil 1000 mg/m²/hari pada hari ke-1 sampai 4 dan cisplatin 100 mg/m² pada hari ke-1 selama 3 siklus. Dinilai kualitas hidup pra dan pascaterapi 3 bulan. Dinilai respon terapi, toksisitas, dan status penampilan fisik Karnofsky.

Hasil : Pascaterapi 3 bulan, kelompok kombinasi radioterapi ditambah kemoterapi mengalami penurunan kualitas hidup dibanding dengan radioterapi yang diukur dengan *Short Form-36*. Penurunan pada domain fungsi fisik (Δ 13,31, $p=0,001$), peran fisik (Δ 13,57, $p=0,017$), kesehatan umum (Δ 12,20, $p=0,007$), fungsi sosial (Δ 13,73, $p=0,027$), dan peran emosi (Δ 14,76, $p=0,015$). Tidak didapati perbedaan pada domain nyeri tubuh, vitalitas, dan kesehatan mental. Kombinasi radioterapi ditambah kemoterapi mempunyai respon lengkap 93,10% dibanding radioterapi 70,97% ($p=0,027$). Tidak didapati perbedaan menurut toksisitas. Status penampilan fisik Karnofsky mengalami penurunan pada kelompok radioterapi ditambah kemoterapi dibanding dengan kelompok radioterapi (Δ 9,73, $p=0,035$).

Kesimpulan : (1) Penderita karsinoma nasofarings pascaterapi 3 bulan yang mendapat kombinasi radioterapi ditambah kemoterapi mengalami penurunan kualitas hidup dibanding dengan radioterapi, untuk domain fungsi fisik, peran fisik, peran emosi, fungsi sosial dan kesehatan umum. (2) Kombinasi radioterapi ditambah kemoterapi mempunyai respon terapi lebih baik dibanding dengan radioterapi.

Kata Kunci : Karsinoma nasofarings, kualitas hidup, radioterapi, kemoterapi, *Short Form-36*.

Background : Nasopharyngeal carcinoma is the most common malignancy in head and neck. In Indonesia this disease has the highest frequency. Nasopharyngeal carcinoma (NPC) is characterized by various early symptoms, which are usually difficult to be diagnosed. The main complaint is lump on the neck, which may be accompanied by symptoms of the nose, ear, eye, and throat. Cranial involvement may occur. NPC treatment is radiotherapy. Chemotherapy may be added to improve the therapy response. In addition, functional status may decrease, either due to the disease or as a result of the therapy. The combined chemoradiation may result in severe toxicity, as well as decrease functional status and quality of life (QOL). Radiotherapy as a single treatment modality, on the other hand, may not.

Objectives : (1) To determine the difference of QOL between the group treated by radiotherapy as a single treatment modality and that treated by chemoradiation, three months after therapy. (2) To assess the therapy response between the two groups.

Hypothesis : (1) The QOL mean score, assessed by Short Form-36 (SF-36), of the NPC patients treated by chemoradiation, three months after the therapy, is lower than that of the group treated by radiotherapy. (2) Chemoradiation gives better response than radiotherapy.

Study design : Prospective cohort.

Setting : Dr Sardjito General Hospital, Yogyakarta.

Subject : NPC patients with the biopsy proven diagnosis. The histopathology revealed malignancy which was consistent with WHO criteria. The radiotherapy group consisted of 31 patients, and 29 patients in the chemoradiation group. The radiation dose was fractionated, 1.8-2 Gy daily, 5 fractions per week. The total dose was 66-70 Gy. In the chemoradiation group, the 5-fluorouracil was added on the 1st until the 4th day, with the dose of 1000 mg/m²/day, and cisplatin 100 mg/m² were added on the first day of three cycles. The QOL was assessed before and 3 months after therapy. In addition, therapy response, toxicity, and Karnofsky performance status were assessed.

Results : Three months after treatment, the chemoradiation group decreased QOL more than the radiotherapy group. The decrease QOL occurred in physical functioning (Δ 13,31, $p=0,001$), role of physical functioning (Δ 13,57, $p=0,017$), generally health (Δ 12,20, $p=0,007$), social functioning (Δ 13,73, $p=0,027$), as well as role of emotional functioning domain (Δ 14,76, $p=0,015$). There were no different scores in bodily pain, vitality, and mental health domain, between the two groups. Chemoradiation gave 93,10% rate of complete response, whereas radiotherapy revealed 70,97% rate ($p=0,027$). There was no difference in toxicity, though. The Karnofsky performance status was lower in the chemoradiation group than in the radiotherapy group (Δ 9,73, $p=0,035$).

Conclusions : (1) NPC patients treated by chemoradiation developed decreased QOL, three months after therapy. The decrease score occurred in physical functioning, role of physical functioning, role of emotional functioning, social functioning and generally health. (2) Chemoradiation gave better therapy response than radiotherapy.

Keywords : *Nasopharyngeal carcinoma, quality of life, radiotherapy, chemotherapy, Short Form-36*