IVYSPRING INTERNATIONAL PUBLISHER

Journal of Cancer

2016; 7(7): 794-802. doi: 10.7150/jca.15097

Research Paper

Survival and Quality of Life Benefit after Endoscopic Management of Malignant Central Airway Obstruction

Grigoris Stratakos[1], Vasiliki Gerovasili[2], Charalampos Dimitropoulos[1], Ioannis Giozos[3], Filippos T. Filippidis[2], Sofia Gennimata[1], Paul Zarogoulidis[4]✉, Athanasios Zissimopoulos[5], Athanasia Pataka[4], Nikos Koufos[1], Spyros Zakynthinos[2], Konstantinos Syrigos[3], Nikos Koulouris[1]

1. 1st Pulmonary Medicine Department of National and Kapodistrian University of Athens, "Sotiria" General Hospital Athens, Greece;
2. 1st Respiratory and Critical Care Medicine department of National and Kapodistrian University of Athens, "Evangelismos" Hospital Athens, Greece;
3. Oncology Unit, 3rd Department of Internal Medicine of National and Kapodistrian University of Athens, "Sotiria" General Hospital, Athens, Greece;
4. Pulmonary Oncology Unit, "G. Papanikolaou" General Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece;
5. Nuclear Medicine Department, University General Hospital of Alexandroupolis, Democritus University of Thrace, Alexandroupolis, Greece.

✉ Corresponding author: Paul Zarogoulidis, M.D, PhD. Pulmonary Department-Oncology Unit, "G. Papanikolaou" General Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece. Fax: 00302310992424 Mobile: 00306977271974 E-mail: pzarog@hotmail.com.

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Received: 2016.01.26; Accepted: 2016.03.21; Published: 2016.04.25

Abstract

Background: Although interventional management of malignant central airway obstruction (mCAO) is well established, its impact on survival and quality of life (QoL) has not been extensively studied.

Aim: We prospectively assessed survival, QoL and dyspnea (using validated EORTC questionnaire) in patients with mCAO 1 day before interventional bronchoscopy, 1 week after and every following month, in comparison to patients who declined this approach.

Material/Patients/Methods: 36 patients underwent extensive interventional bronchoscopic management as indicated, whereas 12 declined. All patients received full chemotherapy and radiotherapy as indicated. Patients of the 2 groups were matched for age, comorbidities, type of malignancy and level of obstruction. Follow up time was 8.0±8.7 (range 1-38) months.

Results: Mean survival for intervention and control group was 10±9 and 4±3 months respectively ($p=0.04$). QoL improved significantly in intervention group patients up to the 6th month ($p<0.05$) not deteriorating for those surviving up to 12 months. Dyspnea decreased in patients of the intervention group 1 month post procedure remaining reduced for survivors over the 12th month. Patients of the control group had worse QoL and dyspnea in all time points.

Conclusions: Interventional management of patients with mCAO, may achieve prolonged survival with sustained significant improvement of QoL and dyspnea.

Key words: lung cancer, intervention, quality of life.

Introduction

Malignant tumors may produce central airway obstruction (CAO) causing severe dyspnea, significant morbidity and mortality.[1] Lung cancer patients develop CAO in as much as 30% of cases while up to 40% of the deaths are attributed to loco-regional progression.[2] Chemo- and radio-therapy alone, seldom can alleviate airway obstruction due to non-small cell lung cancer (NSCLC). Most patients present at advanced stage while surgical interventions are rarely indicated for tumors of the trachea and main carina. In these cases, interventional therapeutic bronchoscopy remains an important alternative method for airway management.[3-5]

Reported survival of patients with untreated malignant CAO usually ranges from 1 - 2 months with many of them dying of asphyxia or on mechanical ventilation.[6] Although the palliative effect of