

Proceeding Paper

Incidence of Oral Mucositis in Patients Undergoing Head and Neck Cancer Treatment: Systematic Review and Meta-Analysis [†]

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Abstract: This systematic review and meta-analysis aimed to assess the literature about the incidence of oral mucositis and its degrees (mild, moderate, and severe), in patients undergoing head and neck cancer treatment (radiotherapy, chemotherapy, and surgery). Addressing this issue is important since oral mucositis has a negative impact on oral health and significantly deteriorates the quality of life. Therefore, a multidisciplinary team, including dentists, should be involved in the treatment. The overall oral mucositis incidence was 89.4%. The global incidence for mild, moderate, and severe degrees were 16.8%, 34.5%, and 26.4%, respectively. The high incidence rates reported in this review point out the need for greater care in terms of the oral health of these patients.

Keywords: head and neck cancer; oral mucositis; radiotherapy; chemotherapy



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1. Introduction

OM (oral mucositis) is an acute response which affects patients undergoing radiotherapy (RT) and/or chemotherapy (QT) treatments for head and neck cancer. OM includes clinically erosive and/or ulcerative oral lesions that can cause mild to severe pain [1–6]. Due to the overall impact on oral health, it is important to evaluate these patients before and after treatment and to have an effective collaboration between health professionals [4].

2. Materials and Methods

This systematic review assessed the following research question: ‘What is the incidence of OM, as well as the respective degrees, in the context of treatment (RT/QT/surgery) of patients with head and neck cancer?’ Articles published between 2015 and 2020, adult patients (≥ 18 years), and articles that present the incidence of OM in patients during and/or after treatment for head and neck cancer were included. The search was carried out using three databases: PubMed, B-on, and Google Scholar. Six articles were included in the systematic review and in the meta-analysis. The formula [OM incidence = patients with OM/total sample] was used to determine the incidence. Random effect meta-analysis statistics and graphs were performed using Open Meta [Analyst] in its current version.

3. Results and Discussion

The studies in this review reported a high incidence of OM (89.4%), as seen in Figure 1. Heterogeneity was close to 81%. Most reported cases of OM were moderate. Partial incidence of degrees 1, 2, and 3 of OM was 16.8%, 34.5%, and 26.4%, respectively.

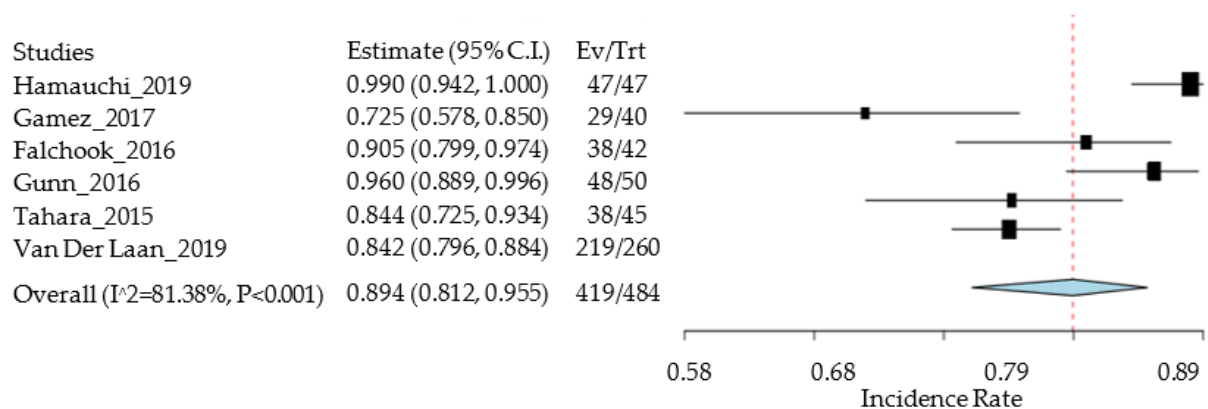


Figure 1. Forest plot representative of the meta-analysis of the incidence rate of OM: Ev—number of patients who had OM and Trt—number of patients who underwent treatment for head and neck cancer at risk of developing OM.

The incidence rates of OM reported in this meta-analysis are high, with a need for greater care in terms of the oral health of these patients. In short, there were some limitations in this systematic review in terms of the number of articles published in the last 5 years in relation to OM. Another major limitation was the great heterogeneity in the treatments that patients were subjected to in the different articles and often within the article itself.

Conflicts of Interest: The authors declare no conflict of interest.

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