

A Brief Note on Chemoprevention for Oral Cancer

Abou Alfa*

Department of Gastrointestinal Oncology,
Memorial Sloan Kettering Cancer Centre,
New York

Abstract

The process or the phenomena of the chemoprevention is one of the utmost criteria in the cancer treatments. The different types of the therapies that are included for preventing cancer are discussed in this present commentary article. Also, the natural as well as the synthetic forms of the chemo-preventative substances are also listed. The future COX-2 inhibitors as the chemoprevention agents, these will depend on the extent of the cancer cause as they are associated with certain class of agents were also discussed.

Corresponding author:

Abou Alfa, Department of Gastrointestinal
Oncology, Memorial Sloan Kettering Cancer
Centre, New York

✉ abou_alfa@izsto.edu

Received: October 04, 2021; Accepted: October 08, 2021; Published: November 04, 2021

Introduction

The chemoprevention is a process in which the malignant progression that is responsible for the occurrence of invasive cancer delayed or made reverse. This phenomenon can be delayed or reversed by the application or by the use of the certain natural or synthetic substances. The well-known or the mostly used substance for halting the malignant progression of the oral is retinoid. By the application of the 13-cis-retinoic acid for three months, almost 75% of the clinical response is yielded with respect to the 10% of the placebo. The toxicity rate is not so high and also considerable; the high rate of the relapse is seen within three months of the stoppage of the treatment. With the several studies and surveys that are been gone through since years, reveal that the patients with the pre-malignant lesions have confirmed with certain clinical as well as the pathological responses with lesser toxicological responses though.

In terms of the retinoid therapy, there are certain abnormalities molecularly are persisted in some patients with the fullest of clinical as well as the pathological responses. The other substances or the reagents that are used in the chemoprevention are vitamin E, a soybean extraction such as Bowman-Birk inhibitor concentrate (BBIC), curcumin and a component of green tea i.e., polyphenol epigallocatechin. These generally have less toxicity when compared to the synthetic agents or substances. As of now in the current developmental studies, the focus is on the agents that are targeted to the specific steps in the molecular progression. The development seems to be from the normal pre-malignancy to the invasive carcinoma. In molecularly targeted agents, the promising results are seen according to the studies, the study can be conducted in the animal models that are available and the agents used include the cyclooxygenase – COX 2 inhibitors and dermal

growth factor receptor inhibitors. The data that is obtained from the analysis or the study performed by many researchers reveal that, COX-2 inhibitors is the good pathway for the oral cancer prevention. Also, these COX-2 inhibitors are overexpressed in the head as well as neck squamous carcinoma and therefore, they help in the prevention of the oral cancer development.

The randomized placebo, a controlled trial of COX-2 inhibitor when administered for the oral rinse in the case of patients with leukoplakia, revealed that the treatment is much well tolerated and do not result with much difference in the clinical response in comparison with the placebo. The future COX-2 inhibitors as the chemoprevention agents, these will depend on the extent of the cancer cause as they are associated with certain class of agents. The other inhibitors, such as EGFR alone or in combination with the also promises the divergent effects in prevention from the malignant progressions. These are generally overexpressed in the patients with the oral invasive cancer with poor prognosis of head and neck squamous carcinoma. The EGFR generally, shows the activity of inhibition of the premalignant progression. The chemoprevention seems like a promising approach for preventing the malignant progressions with respect to the several clinical studies.

Acknowledgments

None

Conflicts of Interest

The authors declare that there are no conflicts of interest.