کارگاه‌های آموزشی مرکز اطلاعات علمی

مقاله نویسی علوم انسانی

اصول تنظیم قراردادها

آموزش مهارت های کاربردی در تدوین و چاپ مقاله
Herbal medicine for oral squamous cell carcinoma treatment: a systematic review

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Abstract
Although lots of great achievements have been gained in the battle against cancer during the past decades, cancer is still the leading cause of death in the world including in developing countries. Oral squamous cell carcinomas (OSCC) can originate in any location of the mucosa, but the sites most frequently affected are the tongue and floor of the mouth. It predominantly affects men between the fifth and sixth decades of life, being rare in patients under 40 years of age. However, its incidence in younger patients has increased in recent decades. Herbal medicinal products are commonly prescribed for the prevention, treatment, and cure of diseases for thousands of years. Over the past decades, the exploration in the area of herbal psychopharmacology has received much attention. In this review, we aimed to introduce the mechanisms of Herbal medicine, as an option of individualized therapy, in treating oral SCC. Herbal medicine could be used as a complementary and alternative medicine (CAM) in human cancers. It could be applied in oral squamous cell carcinoma patients. In addition, it is a good method for alleviating the side effects of both radiotherapy and chemotherapy.

Keywords: herbal medicine, oral squamous cell carcinoma, cancer, Systematic review.
Introduction

Although lots of great achievements have been gained in the battle against cancer during the past decades, cancer is still the leading cause of death in the world including in developing countries. Oral squamous cell carcinomas (OSCC) can originate in any location of the mucosa, but the sites most frequently affected are the tongue and floor of the mouth [1]. It is estimated that the oral cavity ranges from the sixth to the ninth most frequent anatomical location affected by cancer, depending especially on the country and gender of the investigated patients. It predominantly affects men between the fifth and sixth decades of life, being rare in patients under 40 years of age. However, its incidence in younger patients has increased in recent decades [2]. Oral SCC (OSCC) can originate in any location of the mucosa, but the sites most frequently affected are the tongue and floor of the mouth. Clinically, it presents as an ulcerated lesion, with a central necrotic area, surrounded by raised borders [3]. It predominantly affects men between the fifth and sixth decades of life, being rare in patients under 40 years of age. However, its incidence in younger patients has increased in recent decades. Herbal medicinal products are commonly prescribed for the prevention, treatment, and cure of diseases for thousands of years. Over the past decades, the exploration in the area of herbal psychopharmacology has received much attention [6]. Since various adverse events of western medication exist, the number of people who use herbs to benefit their health is increasing [4]. Over the past decades, the exploration in the area of herbal psychopharmacology has received much attention [5]. In this review, we aimed to introduce the mechanisms of Herbal medicine, as an option of individualized therapy, in treating oral SCC. Herbal medicine could be used as a complementary and alternative medicine (CAM) in human cancers [7]. It could be applied in oral squamous cell carcinoma patients. In addition, it is a good method for alleviating the side effects of both radiotherapy and chemotherapy [8].

Methods

This systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. A review protocol was created a priori and registered on PROSPERO international prospective register of systematic reviews. Search strategy

We conducted a search on Medline, Embase, Web of Science and Lilacs databases from the earliest record to February 2021. Optimized search strategies were performed using the key terms “oral cancer” or “oral squamous cell carcinoma” or “oral SCC” or “oral tumor” or “oral neoplasm” or “mouth neoplasms” or “gingival neoplasms” or “palatal neoplasms” or “tongue neoplasms” AND “herbal medicine” or “herbs”. No restriction was applied on the year of publication. Studies included in the review were restricted to English languages. Citation tracking was performed by manually screening reference lists.

Eligibility criteria

Eligible studies included those that were performed in humans; were cohort, case-control or cross-sectional; assessed the herbal medicine for oral squamous cell carcinoma treatment.

Exclusion criteria

We excluded studies that were not original, included SCCs of lip or other OSCC variants, duplicated information from previously published papers, did not mention the number of OSCCs analyzed.
Study selection and data extraction
the first evaluation of potentially eligible articles involved the screening of titles and abstracts by
one independent reviewers. Relevant records selected from this stage were examined by analysis
of the full text. The following data were extracted from each included study: continent, country,
period of study, sample obtainment, OSCC sites, number, gender, and age.

Quality assessment
The methodological quality of included articles was assessed using a checklist based on previously
employed tools. Fourteen quality criteria were applied. whether sample size was at least 50
patients, whether the cases were recruited randomly or consecutively, or were incident cases, the
recruitment period was stated.

Results
Today, many people have turned to various dietetic interventions, including the use of natural
products based on herbs and plants to avoid risk of OSCC. Searches performed through the
databases retrieved 75 articles. After excluding the duplicates, 35 articles had their titles and
abstracts screened. The full text was assessed in 23 of them, but only five were included. The main
reason for paper exclusion was the lack of Herbal medicine for oral squamous cell carcinoma
treatment. All included papers were published between 2013 and 2021 and reported data from
North and South America, Asia, and Europe. The five articles included a total of 383 patients,
most of them male. Participants included in the studies had an age of 19--92 years. The highest
mean age of patients with OSCC, identified by Chor et al.,18 was 63.5. Also, two studies analyzed
Herbal medicine for OSCC patients and described the tongue as the affected site in 131 cases.
Ginseng and caffeine had greater effect on cancer treatments. Despite their positive effects, these
herbs should be used with precaution because high doses may cause harmful side effects on kidney
and stomach in particular. However, it is imperative to have a comprehensive and extensive guide,
which allows patients to understand beneficial and harmful effect of some product better. In this
context, we have found that most herbs used in cancer treatments have a low-moderate effect on
OSCC.


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