A SHORT REVIEW ON PREVALANCE OF ORAL CANCER AND ITS RISK FACTOR.

Avinash Kumar[1*], Pawan[2]

[1,2]Assistant Professor, School of Medical and Allied Sciences, Galgotias University, Uttar Pradesh, India.

Abstract

Clonality, autonomy, anaplasia, invasion, and metastasis are all features of cancer, a life-threatening disease that affects people all over the world. Every year, more individuals are diagnosed with cancer throughout the world. The majority of cancers are caused by lifestyle changes such as nicotine, smoking, and excessive alcohol use. Oral cancer, skin cancer, breast cancer, lung cancer, and cervical cancer are the most common malignancies, despite the fact that 100 distinct forms of cancers have been documented globally. For more than half of newly diagnosed patients, oral cavity cancer is still a life-threatening condition. Despite the ease of physical inspection of the oral cavity, the high prevalence of oral cancer is ascribed to a lack of awareness, a delay in diagnosis, and patient delay. Furthermore, despite recent advancements in the treatment of oral malignancies, the survival rate of patients has not increased significantly. The epidemiology and aetiology of mouth cancer are discussed in depth in this article. The molecular and biochemical alterations that occur during oral carcinogenesis also were investigated. A brief overview of the chemo preventive drugs that have been tested against experimental carcinogenesis is also provided.

Key words: Malignancies, ascribed, aetiology, prevalence, epidemiology, cancer, survival.

Introduction

Clonality, individuality, anaplasia, invasion, and metastasis are all characteristics of cancer, which is a life-threatening worldwide burden.[1] It is a vast category of disorders that affect people of all ages. Cancer symptoms vary depending on the cancer's location, size, invasion, and metastasis. The survival rate and quality of life of patients might both benefit with early identification and diagnosis[2]. Patients with cancer are treated with surgery, chemotherapy, radiation, gene therapy, or immunotherapy, depending on the kind and location of their tumours.

Every year, the number of people diagnosed with cancer rises across the world[3]. Cancer, a growing hazard to global health, has far-reaching economic and social consequences for individuals all over the world.

According to Ferlay et al., there were 14.1 million new cancer cases diagnosed globally in 2012. They also stated that cancer claimed the lives of 8.2 million people in 2012[4]. According to US epidemiological studies, there would be roughly 1,658,370 cancers have been identified cases as well as 589,430 cancer-related fatalities by the year 2015[5][6].

Every year, around 530 males and 510 females in the United Kingdom are diagnosed with cancer [7]. According to Russian cancer registry reports, cancer affects about 2.1 percent of the country's overall population each year. Malignant malignancies account for 15% of all fatalities in Russia [8]. Every year, China reports 2.8 million recently diagnosed patients and 1.96 million cancer-related fatalities [9]. Cancer is the leading cause of illness and death in India, with over 1 million new cancer cases identified each year and approximately 600,000-700,000 Indians dying from cancer by 2012[10].

Overall cancer incidence in India was lower than in industrialised nations, according to epidemiological research [11].

ORAL CANCER

Oral cancer, also known as oral cavity cancer, is caused by the accumulation of numerous genetic abnormalities in the oral cavity's squamous cells [12]. Squamous cell carcinoma is the most common kind of oral cancer, accounting for 90% of all cases. For more than half of newly diagnosed patients, oral cavity cancer is still a life-threatening condition [13][14]. Oral cancer is becoming more common despite easily available diagnostic technologies, a lack of awareness, and a delayed prognosis [15].

Oral cancer patients are expected to have a 50% 5-year survival rate, but tongue cancer patients are expected to have a lower 5-year survival rate [16].

EPIDEMIOLOGY OF THE ORAL CANCER

According to epidemiological research from various nations, around 300,000 persons are newly diagnosed with oral cancer each year, with two-thirds of them coming from developing countries [17].

Variation in the use or exposure to risk factors such as cigarettes and alcohol causes global variation in the yearly incidence rate of mouth cancer [18]. Oral cancer is the sixth most frequent cancer in the United States, with an annual incidence rate of 10 per 100,000[19]. Furthermore, around 8000 fatalities attributable to oral cancer are documented

each year in the United States. Every year, around 35,000 Americans are diagnosed with oral cancer for the first time [20].

SITE DISTRIBUTION

While tongue cancer is the most frequent cancer in the United States and Europe, buccal cancer is more common in Asian nations such as India [21]. Other intraoral locations of cancer of the oral cavity include the lip, floor of mouth, palate, and gingivae [22].

RISK FACTORS

Risk factors are substances or actions that increase the likelihood of contracting a specific disease. Long-term cigarette and alcohol misuse have been recognised as key risk factors in the development of oral cancer [23]. Chewing tobacco and betel quid, smoking tobacco, bidi, and cigarettes, and drinking alcohol are all significant risk factors for oral cancer in India. Risk factors are substances or actions that increase the likelihood of contracting a disease [24]. In the aetiology of oral cancer, long-term tobacco and alcohol addiction have been recognised as key risk factors. Oral cancer is caused by tobacco and betel quid chewing, tobacco, bidi, and cigarette smoking, and alcohol intake in India [25].

DIAGNOSIS

In the tumour tissues of various malignancies, there are various combinations of genetic and epigenetic alterations [26]. Some of the diagnostic modalities used to confirm the presence of malignant tumours in the oral cavity include cytology and brush biopsy, fine-needle aspiration, toluidine-blue staining, visualization-based adjunctive techniques (optical coherence tomography, and autofluorescence technique), and imaging studies (computed tomography, magnetic resonance imaging and position emission tomography) [27]. Individual self-examination may aid in the early detection of oral cancer. Routine oral cavity screenings might aid in the early detection of problematic lesions. Delays in diagnosis are frequently caused by the unwitting patient's failure to seek medical attention or the clinician's late request to examine the suspicious tissue further [28].

Any abnormal results should be thoroughly investigated by a physician, not only in the internal site but also in the extraoral head and neck tissues. The longer it takes for a diagnosis to be made, the poorer the quality of life and the lower the chances of survival.

PREVENTION

Betel-nut, alcohol and tobacco consumption can all contribute to the development of oral cancer. Tobacco bidi and cigarette smoking, as well as alcohol usage, can all contribute to the development of oral cancer. Limiting UV radiation exposure and eating a variety of fruits and green vegetables can also help to reduce the chance of getting mouth cancer [29].

CONCLUSION

Oral cancer is a multifactorial cancer of the oral cavity that is caused by alcohol and tobacco consumption, which causes molecular and biochemical abnormalities in the oral cavity. Because the risk factors for mouth cancer are known to be changeable, the government should

make a concerted effort to raise public knowledge about the disease in order to reduce the occurrence of oral cancer.
As a result, this type of cancer not only has a severe health impact, but it also has an impact on the entire quality of life of oral cancer patients.

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