

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,900

Open access books available

185,000

International authors and editors

200M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Introductory Chapter: Be Careful! It Can Be Cancer

Zühre Akarslan

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70045>

Introduction

Head and neck cancer includes the cancers of oral cavity, salivary glands, nasal cavity, paranasal sinuses, oropharynx, hypopharynx, pharynx, and larynx. It has a high rate among all cancer types in the world, and it constitutes a major public health problem. Although there are different histopathological types, the majority of the lesions are squamous cell carcinomas which usually arise from mucosal lining [1]. Males are more commonly affected from the condition compared to females [2].

The signs and symptoms of head and neck cancer depend according to the localization of the lesion. The most common sign of laryngeal cancer is hoarseness, whereas difficulty in swallowing or sore throat is seen in pharyngeal cancers. Sometimes, a painless neck mass is present. The important point is that the clinician should be careful during the examination of patients with nonspecific signs and symptoms, or signs and symptoms mimicking benign pathologies [1]. Any of the following such as sore throat, hoarseness, stridor, difficulty in swallowing, lump in neck, unilateral ear pain, red or white patch in the oral cavity, oral ulcer, presence of an indurated or rolled border, loosened teeth over a short time, rapid swelling with no demonstrable cause, lateral neck mass, lymphadenopathy, rapidly growing thyroid mass, cranial nerve palsy, orbital mass, and unilateral ear effusion lasting for more than 3 weeks can be cancer [3, 4].

When we look at the etiology and risk factors of head and neck cancer, tobacco and alcohol are reported to be the major ones. If the patient is smoking and drinking alcohol at the same time, the risk is multiplied [5]. Genetic predisposition is related with some cases. Genetic polymorphisms in genes encoding the enzymes, which are responsible from the metabolism of tobacco and alcohol, increase the risk of development of cancer [1]. Viruses are linked with head and neck cancer. Human papilloma virus (HPV) is reported to be a risk factor, especially for oropharyngeal cancer [6].

Premalignant lesions of the oral cavity are also suspected as risk factors. These lesions do not have a high-risk factor like the others addressed earlier but should be carefully examined and treated. Leukoplakia and erythroplakia are the common premalignant lesions. Oral lichen planus also has the potential of malignant transformation [7].

Patients with Fanconi anemia, ataxia telangiectasia, Bloom's syndrome, and Li-Fraumeni syndrome have the risk of developing head and neck cancer. In addition, the risk of developing malignancy increases in immunosuppressed patients. Although Kaposi's sarcoma and non-Hodgkin's lymphoma are the most prevalent lesions seen among HIV-positive patients, the risk of oropharyngeal squamous cell carcinoma is increased [7].

If you do not pay enough attention to the signs and symptoms of head and neck cancer and do not treat premalignant lesions and premalignant conditions, the requirement of a more aggressive treatment and even early death of the patient can occur [4]. Thus, be careful! It can be cancer.

Overview of the chapters of this book

Second chapter: "Head and Neck Cancer: Epidemiology and Role of MicroRNAs" written by **Muhammad Babar Khawar, Naz Fatima, Muddasir Hassan Abbasi, Rabia Mehmood, Saira Kainat, and Nadeem Sheikh**. This chapter starts with the epidemiology and then focuses on the role of microRNAs on head and neck cancer. The authors give information about the discovery and biology of microRNAs. Recently identified microRNAs that undergo deregulation in head and neck cancer and their role in nasopharyngeal carcinoma and oral carcinogenesis are presented in detail. A list of microRNAs, identified as potent biomarkers of head and neck cancer, is presented. This is particularly helpful to the readers. The authors emphasize that microRNAs may be used to improve treatment strategies of head and neck cancer.

Third chapter: "Salivary Gland Cancers: A Survey Through History, Classifications and Managements" written by **Mohammad Hossein Khosravi, Ali Bagherihagh, Masoumeh Saeedi, Payman Dabirmoghaddam, Ali Kouhi, and Mohammad Hosein Amirzade-Iranaq**. This chapter starts with the anatomy, embryology, and structure of salivary glands. Then, a detailed histological classification of epithelial tumors according to WHO and TNM classification and staging of major salivary gland tumors are given. Preoperative assessment and management of the tumors based on recently published data in the literature are presented. These topics are useful for the clinicians.

Fourth chapter: "Thyroid Cancers: Considerations, Classifications and Managements" written by **Mohammad Hossein Khosravi, Ali Kouhi, Masoumeh Saeedi, Ali Bagherihagh, and Mohammad Hosein Amirzade-Iranaq**. This chapter starts with a detailed epidemiology of thyroid cancer, following clinical features and categories of thyroid malignancies according to a new classification. Staging and management of these lesions are also presented. The authors' description of thyroid cancer categories and treatment options peculiar to each lesion is particularly informative.

Fifth chapter: "Medullary Thyroid Carcinoma: Recent Updates on the Diagnosis and Management" written by **Andrei Cismaru, Iulia Coroian, Gabriel Cismaru, and Adrian Udrea**. This chapter describes updates on the diagnosis and treatment of medullary

thyroid carcinoma. Fine-needle aspiration, serum calcitonin, computed tomography, and fludeoxyglucose-positron emission tomography (FDG-PET) are summarized. Biomarkers with prognostic value, such as plasma calcitonin, carcinoembryonic antigen, germ-like RET mutation, and matrix metalloproteinase, are given. Updates on the management and treatment of the pathology including surgical treatment, radiation therapy, systemic therapy angiogenesis inhibitors as well as transcatheter arterial embolization, percutaneous ethanol injection and gene therapy are described. Finally, the authors present a case of medullary thyroid carcinoma.

Sixth chapter: “Interventional Techniques for Head and Neck Cancer Pain” written by Victor M. Silva Ortíz, Guillermo E. Aréchiga Ornelas, José A. Flores Cantisani, J. Ignacio Reyes Torres, and Fernando Cantú Flores. This chapter gives information about factors associated with pain resulting from head and neck cancer and the methods used for the management of pain. The interventional techniques, which have been employed successfully for head and neck cancer pain such as sphenopalatine ganglion block, trigeminal ganglion block, glossopharyngeal nerve block, and stellate ganglion block, are described. In addition, vertebroplasty for cancer-related cervical vertebral compression fractures, intrathecal drug delivery systems, peripheral nerve blocks, cervical epidural and medial branch block, and Botulinum neurotoxin are also included. This chapter provides valuable information about these techniques to the clinician.

Seventh chapter: “Oral Side Effects of Head and Neck Irradiation” written by Vlaho Brailo, Vanja Vučićević Boras, Danica Vidović Juras, Ana Andabak Rogulj, Božana Lončar Brzak, and Ivan Alajbeg. This chapter gives information about the acute and chronic side effects of head and neck irradiation. Besides, the dentist’s role in head and neck cancer team, dental management before radiation therapy, and oral care of these patients during and after head and neck radiotherapy are given in detail. The role of dentists for the management of such patients’ is stressed in the chapter. The readers can benefit from practical strategies which could be applied in clinical practice.

Eighth chapter: “Health-Related Quality of Life in Maxillectomy Patients Rehabilitated with Obturator Prostheses: A Literature Review” written by Kadriye Peker. This chapter gives information about the results of the studies including manufacturing individualized obturators, different retention mechanisms, obturator replacement with free flap, obturator functioning, health-related quality of life (HRQOL), and self-reported problems among patients wearing an obturator prosthesis according to a literature search performed in PubMed, EMBASE, and Google Scholar. The tables summarizing results of different studies are particularly informative to the readers.

Author details

Zühre Akarslan

Address all correspondence to: dtzuhre@yahoo.com

Department of Oral and Maxillofacial Radiology, Faculty of Dentistry, Gazi University, Ankara, Turkey

References

- [1] Mehanna H, Paleri V, West CML, Nutting C. Head and neck cancer—Part 1: Epidemiology, presentation, and prevention. *British Medical Journal*. 2010;**341**:c4684
- [2] Scully C, de Almeida OP, Bagan J, Diz Dios P, Taylor AM. *Oral Medicine and Pathology at a Glance*. 1st ed. Wiley-Blackwell; England. 2010. p. 51
- [3] National Institute for Health and Clinical Excellence. *Improving Outcomes in Head and Neck Cancers—The Manual*. 2004. Available from: <http://guidance.nice.org.uk/csgn/guidance/pdf/English> [Accessed: June 2, 2017]
- [4] Wood RE. Malignant diseases of the jaws. In: White SC, Pharoah MJ, editors. *Oral Radiology. Principles and Interpretation*. 6th ed. St. Louis Mosby: Elsevier; 2009. pp. 405-427
- [5] Blot WJ, McLaughlin JK, Winn DM, Austin DF, Greenberg RS, Preston-Martin S, Bernstein L, Schoenberg JB, Stemhagen A, Fraumeni JF Jr. Smoking and drinking in relation to oral and pharyngeal cancer. *Cancer Research*. 1988;**48**:3282-3287
- [6] Leemans CR, Braakhuis BJM, Brakenhoff RH. The molecular biology of head and neck cancer. *Nature Review Cancer*. 2011;**11**:9-22
- [7] Shaw R, Beasley N. Aetiology and risk factors for head and neck cancer: United Kingdom National Multidisciplinary Guidelines. *Journal of Laryngology & Otology*. 2016;**130**:9-12