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KNOWLEDGE ON ORAL CANCER IN ACADEMICS OF ODONTOLOGY

Conhecimento sobre câncer bucal em acadêmicos de odontologia

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Abstract: Objective: to evaluate the knowledge of academics of a private institution in the north of Minas Gerais on oral cancer. **Methodology:** it was a cross-sectional and quantitative study. The sample consisted of 202 students of both sexes, aged 18 and over, selected for convenience, including students in the 5th, 6th, 7th, 8th and 9th grades. For data collection, a Dib (2004) adapted questionnaire was used. The tabulation, analysis and treatment of the collected data were carried out through the software Statistical Package for the Social Sciences (SPSS), version 20.0. The project was approved by the research ethics committee of the Brazilian Educational Association. **Results:** The results showed that 59.4% of the participants considered their knowledge on oral cancer as regular or insufficient and 40.6% considered it as excellent or good. However, with regard to the risk factors for developing oral cancer, most of the participants knew how to recognize them. **Conclusion:** Based on the results of this study, the authors propose that the odontology course of the research institution rectify the current pedagogical guidelines related to oral cancer.

Keywords: Oral cancer; Knowledge; Academics; Odontology.

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Resumo: Objetivo: avaliar o conhecimento de acadêmicos de uma instituição privada do norte de Minas Gerais, sobre o câncer bucal. **Metodologia:** tratou-se de um estudo de caráter transversal e quantitativo. A amostra foi composta por alunos 202 alunos de ambos os sexos, com idade a partir de 18 anos selecionados por conveniência, contemplando os alunos do 5º,6º,7º,8º e 9º períodos da graduação. Para a coleta de dados foi utilizado um questionário Dib (2004) adaptado. A tabulação, análise e tratamento dos dados coletados foi através do software *Statistical Package for the Social Sciences*(SPSS), versão 20.0. O projeto foi aprovado pelo comitê de ética em pesquisa da Associação Educativa do Brasil. **Resultados:** Os resultados mostraram que 59,4% dos participantes consideraram como regular ou insuficiente o seu conhecimento sobre o câncer bucal e 40,6% consideraram como ótimo ou bom. Entretanto no que diz respeito aos fatores de risco para o desenvolvimento do câncer bucal, a maior parte dos participantes soube reconhecê-los. **Conclusão:** fundamentados pelos resultados desse estudo, os autores propõem, que o curso de odontologia da instituição participante da pesquisa retifique as atuais diretrizes pedagógicas relacionadas ao câncer bucal.

Palavras-chave: Câncer bucal; Conhecimento; Acadêmicos; Odontologia.

INTRODUCTION

According to data from 2015 of the National Cancer Institute José Alencar Gomes da Silva (INCA)[1], cancer represents a public health problem. The number of cases has grown mainly among developed countries, the estimate for Brazil in the period 2016-2017 is that there are approximately 600 thousand new cases of cancer occurring and it is estimated that 20 million new cases will be diagnosed by 2025.

Oral cancer is part of a group of tumors that damage the head and neck and it is among the most frequent types of cancer with the highest death rate. On the other hand, it is one of the few types of cancer that can be self-examined. In Brazil, it refers to the sixth most common type of cancer among men and the eighth among women[1,2,3].

The etiology of oral cancer has a multifactorial character and is mainly related to risk factors of extrinsic origin; they are smoking and alcoholism, in addition to chronic exposure to solar radiation in cases of lip cancer. In the last decade, studies have linked human papillomavirus (HPV) infections with the progression of cancers of the oropharynx, amygdala, and tongue base, due to changes in sexual behavior.[1,3,4,5,6,7]

The male subjects, leukodermic, above 40 years are more predisposed to oral cancer. According to Pereira *et al*. 2012[7] there is a higher prevalence of cases of Spinocellular Carcinoma (SCC) or Epidermoid Carcinoma. The most commonly mentioned anatomical locations for the occurrence of oral cancer are anterior third of the tongue, lips, buccal floor and hard palate. [2,4,8,9]

There are atypical tissue changes that favor the development of carcinoma. These lesions were previously known as precursors of cancer, which in 2005 received the new terminology of lesions with malignant potential by the World Health Organization (WHO). The main lesions considered with malignancy potential are leukoplakia, erythroplasia, cheilitis and lichen planus.[10.11]

According to Tomo *et al.*, 2015[12], death rates from oral cancer have been high in the last 20 years compared to other types of cancer. This is because the affected patients are diagnosed with advanced lesions.

According to Oliveira *et al*., 2013[13], it is essential to be aware of the condition of the academics, aiming at the existence of little science involving this group that constitutes the foundation of knowledge. The knowledge about diagnosis and prevention received even during the graduation period is the most important for a suitable future professional exercise.[6,14]

In view of what has been presented, it is indispensable to ascertain the knowledge of future dental surgeons in relation to the risk factors for oral cancer. It is extremely relevant that, even in the condition of academics, they are prepared for the early diagnosis of lesions with potential for malignancy in the oral cavity of the patients attended at the school clinics, thus collaborating with the growth rate of cure and improvement of the prognosis, since they are future health professionals and this task requires a multidisciplinary approach that will simplify the diagnosis.[9,15]

Thus, the present study sought to verify the level of knowledge of dentistry academics of the United Colleges of Minas Gerais (FUNORTE) regarding oral cancer.

MATERIALS AND METHODS

The present study was characterized as transversal and quantitative, aiming to determine the oral cancer knowledge profile of the scholars of the Faculdades Unidas do Norte de Minas (FUNORTE), based on information obtained through questionnaires answered.

The present project was approved by the ethics and research committee of SOEBRAS on December 18, 2016 under protocol 1,873,065 and CAAE: 62488416.6.0000.5141. The sample consisted of 202 students of both sexes, aged 18 and over, selected for convenience, enrolled and frequent in the first semester of 2017. The study included students of the 5th, 6th, 7th, 8th and 9th graduation periods.

The information was collected using the adapted questionnaire Dib (2004). This questionnaire has 32 multiple-choice questions addressing issues related to oral cancer and the anatomical regions, age group with the highest prevalence, clinical features found in patients with lesions in early stages, characteristics of metastatic lymph nodes, diagnostic stage character with injury malignancy and risk factors for the development of the disease; in addition to the gender, age and the year of graduation in which the student is enrolled.

The questionnaires were applied in the classroom, authorized by the institution, together with the free and informed consent, and after they were answered, the data were posted and analyzed. The results were analyzed by SPSS software version 20.0.

RESULTS

Based on the assumption of analyzing the level of knowledge and diagnostic and preventive measures of oral cancer of future dental surgeons, it is possible to estimate the value of health promotion attitudes that seek to educate the population, minimize the prevalence and favor diagnosis and to increase the survival of individuals with this neoplasm.

The sample evaluated 20.3% of men and 79.7% of women, ranging in age from 19 to 42 years, with an average of 22.9 years and a standard deviation of 3.73.

Table 1 shows the self-assessment of oral cancer knowledge, where 59.4% of the participants considered their knowledge level to be regular or insufficient, and only 40.6% of the participants considered the concept to be good.

It can be observed in Table 1 that 67.3% of the participants reported performing a clinical examination to identify oral cancer at the first visit. When asked to dental students, if their patients are well informed about oral cancer, we can see from table 1 that the vast majority of participants (62.9%) considered the concept low.

Regarding the level of confidence of the participants to perform diagnostic procedures for oral cancer, Table 1 shows that just over half of the students (54%) considered it to be regular, 40% low and only 4% high. Table 1 shows that when it comes to the importance of the dental surgeon in the prevention and diagnosis of oral cancer, a significant percentage of 96% considered this to be high.

Table 1 - Perception of oral cancer knowledge by dental academics, 2017.

Variable	Response	Frequency	Percentage
With regard to your level of knowledge in terms of oral cancer, what is your self-assessment?	Excellent or good	82	40,6%
	Regular or insufficient	120	59,4%
At the first dental appointment of your patients, do you perform the clinical examination to identify oral cancer?	Yes	136	67,3%
	No	66	32,7%
Do you consider that your patients are sufficiently informed about oral cancer (preventive aspects of diagnosis)?	High	3	1,5%
	Low	127	62,9%
	Regular	61	30,2%
	Do not know	10	5,0%
What is your level of confidence to perform diagnostic procedures for oral cancer?	High	8	4,0%
	Low	81	40%
	Regular	109	54%
	Do not know	04	2,0%
In your opinion, what is the importance of the dental surgeon in the prevention and diagnosis of oral cancer?	High	194	96%
	Mean	6	3%
	Low	**2**	**1%**

In table 2 we observed the risk factors for oral cancer, the majority of participants 53% considered that injecting drugs is a risk factor for oral cancer. When asked about what they considered as a risk factor for oral cancer, it can be seen in table 2 that dental academics stated that chronic consumption of tobacco, alcohol, direct infection, HPV infection, and chronic exposure to solar radiation are risk factors and the average of these students was 92.7%. From 54%, 72.6% of the participants related emotional stress as a risk factor for the occurrence of oral cancer.

Table 2: Evaluation of knowledge about risk factors for oral cancer among dental academics, 2017

Variable	Response	Frequency	Percentage
Injectable drug use?	Yes	107	53%
	No	66	32,7%
	Do not know	29	14,4%

Continuação da table 2.

Variable	Response	Frequency	Percentage
Having presented other cancer in the body previously:	Yes	184	91,1%
	No	7	3,5%
	Do not know	11	5,4%
Chronic alcohol consumption:	Yes	169	83,7%
	No	20	9,9%
	Do not know	12	5,9%
Chronic tobacco consumption:	Yes	201	99,5%
	No	1	0,5%
Chronic solar exposition:	Yes	191	94,6%
	No	8	4%
	Do not know	3	1,5%
Family History of Cancer:	Yes	191	94,6%
	No	5	2,5%
	Do not know	6	3,0%
Emotional stress:	Yes	109	54%
	No	59	29,2%
	Do not know	34	16,8%
Direct contagion:	Yes	14	6,9%
	No	174	86,1%
	Do not know	14	6,9%
Oral sex:	Yes	55	27,2%
	No	116	57,4%
	Do not know	31	15,3%
Presence of sexually transmitted diseases:	Yes	78	38,6%
	No	100	49,5%
	Do not know	24	11,9%
Maladaptive prostheses:	Yes	95	47%
	No	89	44,1%
	Do not know	18	8,9%
Poor oral hygiene:	Yes	64	31,7%
	No	115	56,9%
	Do not know	23	11,4%

Continuação da table 2.

Variable	Response	Frequency	Percentage
Teeth in poor condition:	Yes	45	22,3%
	No	135	66,8%
	Do not know	22	10,9%
Consumption of spicy foods:	Yes	89	44,1%
	No	69	34,2%
	Do not know	44	21,8%
Drinks and hot food:	Yes	20	9,9%
	No	158	78,2%
	Do not know	**24**	**11,9%**

DISCUSSION

While only approximately 40% of the students in this study considered their knowledge in terms of oral cancer as good, in the studies conducted by Benvenutti *et al*. 2015[4] and Pinheiro, Cardoso and Prado 2010[8], the majority of participants in these studies, who were composed by dental surgeons, consider their level of knowledge as good, 62.2% and 60.5% respectively.

The detailed clinical examination of the oral cavity is essential and should not be ignored by the dental surgeon, because it is through him that possible changes of normality are identified. While 67.3% of the interviewed students reported searching for possible oral neoplastic lesions, in studies by Benvenutti *et al*. 2015[4], Falcão *et al*. 2010[15] and Tomo *et al*. 2015[12], where it was found that 86.5%, 78.9% and 83% of the participating dental surgeons also reported to perform the examination of the buccal cavity routinely.

Approximately 63% of the academics interviewed consider the knowledge of the population on oral cancer scarce. Similar data were found in studies by Angheben *et al*. 2013[6] with students and Alvarenga *et al*. 2012[17] with dental surgeons, since it was verified that 82.2% and 75.7% of the participants, respectively, responded that their patients are not sufficiently informed.

In a survey of dental students conducted by Lamin, Silva, and Souza 2011[9], 51.4% and 2.9% reported, respectively, good and high knowledge on oral cancer diagnosis and prevention, and 11, 4% of participants believed their information on the subject was regular. A distinct scenario from that found in our study, in which 94% of the students were uncertain about diagnosis and treatment and graduated their knowledge as regular or low. 96% of the students consider that the dental surgeon plays a very important role in the prevention and diagnosis of oral cancer, as well as in studies carried out by Pinheiro *et al*. 2010[8] and Tomo *et al*. 2015[12] with dental surgeons and by Angheben *et al*. with academic students, the results were similar: 94.7%, 94.9% and 97.6% of the participants considered the importance of the dental surgeon to be high.

While 53% of the interviewed students considered injectable drugs an important risk factor in the etiology of oral cancer, contradictorily studies by Pinheiro *et al*. 2010[8] and Morais 2003[16], dealing with risk factors, they correctly considered

that injecting drugs do not present a risk for the development of oral cancer, being 92% and 69.70% of respondents. Regarding data on chronic alcohol and tobacco use, direct contagion and chronic exposure to the sun were considered risk factors that, in relation to other studies, Angheben *et al*. 2013[6] found similar data in their study, where 88.9% of the academics also recognized the same risk factors for oral cancer. In Benvenutti *et al*. 2015[4], they found an average of 95.62%; however, their sample was made up of dental surgeons.

In contrast to the study by Pinheiro, Cardoso, and Prado 2010[8], in which only 34.2% of the participants considered emotional stress as a risk factor for oral cancer, in this study and in a study by Falcão *et al*. (2010)[15], mistakenly.

Regarding direct contagion, the majority of participants, 86.1%, correctly did not consider it as a risk factor. Further studies support these data: Benvenutti *et al*. 2015[4] and Tomo *et al*. 2015[12], 93.9% and 92.3% respectively, the respondents answered that there was no relation between oral cancer and direct contagion.

Regarding oral sex, according to Augusto 2007[3], HPV (human papilloma virus), increases the risk of neoplasia in the buccal region. Lamin, Silva, and Souza 2011[9], when assessing in their study the degree of importance related to risk factors for the appearance of oral cancer, it was verified that, in relation to HPV, 81.9% of the participants related it as a risk factor for oral cancer. In contrast, in this study with dental academics, only 27.2% agree that oral sex is a risk factor for oral cancer.

In the study by Angheben *et al*. 2013[6] the issue related to the presence of sexually transmitted diseases and oral cancer raised doubts among the participating students, where only 20.4% considered it to be a risk factor. However, according to Angheben *et al*. 2013[6] with regard to sexually transmitted diseases there are many controversies in the literature, since it is known that oral cancer is not related to direct contagion, that is, it is not contagious. However, it is known that some types of HPV are transmissible through direct contagion and have been related to the development of oral cancer. And there is also HIV, which weakens the immune system, leading to immunosuppression and therefore compromises the individual's defense system, which can lead to the onset of cancer in these individuals. In the present study, only 38.6% considered that the presence of sexually transmitted disease is a risk factor.

Factors such as maladaptive prostheses, poor oral hygiene, poor teeth, consumption of spicy foods and beverages and hot foods were not considered as a risk for oral cancer by 47%, 59.6%, 66.8%, 34.2%, and 78.2% respectively. In the study conducted by Benvenutti *et al*. 2015[4], 91.9% of participants considered hot drinks as a risk factor. In contrast, for Augusto 2007[3], the habit of consuming drinks or very hot foods is not considered an isolated risk factor so relevant to the development of oral cancer. Even if such circumstances are unsupported by scientific evidence, prudence in detecting them may cooperate for the diagnosis of oral cancer.

Vasconcelos 2006[19] verified in his study that many dental surgeons have deficiency in terms of the knowledge and early diagnosis of oral cancer. Regarding specific questions about oral cancer, in the present study some deficiencies were also observed, as in the question related to the most common type of oral cancer in which less than half of the participants (40.1%) stated that squamous cell carcinoma, followed by 25.2% for ameloblastoma, 6.9% for lymphoma, 5.4% for Kaposi's sarcoma, 2.5% for salivary gland adenocarcinoma and 19.8% who could not respond. This result was much lower than that found by Benvenutti *et al*. 2015[4], who verified that most of the dentists surveyed (83.8%) answered that spinocellular carcinoma is the most common type of cancer in the mouth, a result different from that found by Oliveira *et al*. 2013[13]

in which only 31.25% of the dental academics interviewed pointed out as the most common type of oral neoplasm, the spinocellular carcinoma.

In the question associated with the most common aspect in terms of patients with oral cancer in an early stage, there was also a low index of correct answers, since only 44.6% of the participants considered painless ulcer, consecutively 41.6% hard nodule, 3% severe pain, 1% abundant saliva and 9.9% did not know how to respond. Differently from the studies performed by Pinheiro, Cardoso, Prado 2010[8], and Benvenutti et al 2015[4], who obtained a greater percentage of correct answers, 86.33% and 91.9% of dentists respectively, responded to painless ulcer.

Still in relation to the specific questions about oral cancer, in the present study some had a significant percentage of correct answers, such as the questions in terms of what the participant considers to be a suspected malignancy, a common age group for the occurrence of oral cancer, characteristic of cervical metastatic lymph nodes, diagnostic stage and precursor lesion of this neoplasia. On the lesion with suspicion of malignancy, the majority of participants (71.1%) stated that they were painless lesions with rigid borders. In the study conducted by Angheben *et al*. 2013[6], a similar result was found: 87.5% of the interviewed students answered the same. In the study in question the other responses to this item obtained a lower index of student consideration, 21.8% for painful and ulcerated lesions, 3% for fetid and purulent lesions, and 3.5% did not know how to respond. Of the most common age group, 75.8% said they were over 40 years old, 12.4% between 18 and 30 years old and 13.9% did not know how to respond. This data agrees with the studies conducted by Andrade *et al*. 2014[1], Tomo *et al*. 2015[12] and Benvenutti *et al*. 2015[4], where 82.6%, 87.2% and 97.4% dentists respectively indicated the age group of 40 years as the most common.

The characteristic regional lymph nodes were found to be firm, painless and non-motile by more than half of the dental academics in this study (53.5%), 17.3% reported being firm, sore and with mobility, 2% soft, sore and with mobility, 2.5% soft, without pain with or without mobility, and 24.8% did not know how to respond. In the studies conducted by Angheben *et al*. 2013[6], Andrade *et al*. 2014[18] and Falcão *et al*. 2010[15], students and dental surgeons also considered the lymph node firm, without pain and without mobility, 51.7%, 70% and 65.6% of the participants respectively.

Regarding which stage oral cancer is diagnosed frequently, the vast majority of the students in this study (86.1%) said they were in the advanced stage, 5.4% in the early stage and 8.4% did not know how to respond. This result is consistent with the studies of Angheben *et al*. 2013[6] and Tomo *et al*. 2015[12] in which, consecutively, 84.7% and 84.6% students and dental surgeons stated that oral cancer is diagnosed at an advanced stage. The percussive lesion commonly associated with oral cancer was correctly declared as leukoplakia by 79.7% of the participants in the present study, followed by 5.9% for pemphigus vulgaris, 7.4% for candidiasis, 0.5% for geographic language and 6 , 4% of the students stated that they did not know how to answer the question. This result is similar to that observed in the studies of Tomo *et al*. 2015[12] and Pinheiro *et al*. 2010[8], where 74.4% and 75.7% of the participating dentists correctly referred to leukoplakia as a lesion suspected of malignancy.

The anatomical location of oral cancer varies according to the various researches. However, most studies show the lip, tongue and floor of the mouth as the main areas for the occurrence of oral cancer. In the present study, more than half of the participating students considered lip and tongue

as the main areas (56.9%), followed by buccal floor and gum (20.3%), palate (5%), oral mucosa (8.4%), and 9.5% of the students reported not being able to respond. Similar results were found by Oliveira *et al*. 2013[13] in a study with students in which 11.9% reported lip and 30% the language as the main anatomical region. On the other hand, in the research by Tomo *et al*. 2015[12], 48.7% dentists considered the language as a prevalent anatomical region.

The prevention of oral cancer is directly linked to early diagnosis and understanding of the patient for their changes in habits, and the dental surgeon plays a key role in helping the patient in this behavior. (Tomo *et al*. 2015)[12].

CONCLUSION

The dental surgeon plays an essential role in the diagnosis and prevention of oral cancer by having to recognize the lesions suspected of malignancy in relation to the early diagnosis; thus, it is essential in the promotion of health and in establishing a better prognosis and greater survival of patients affected by oral cancer.

Given the results, the present study showed that more than half of the participants (59.4%) considered their knowledge in terms of oral cancer as regular or insufficient, this was confirmed through specific questions such as the most common type of oral cancer, where only 40.1% of academics answered correctly. However, a satisfactory knowledge of the students about the risk factors for the development of oral cancer was noticed. The great majority considered that the chronic consumption of tobacco (99.5%) and alcohol (83.7%) was directly related to the development of this neoplasia.

Based on the results of this study, the authors propose that the odontology course of the research institution rectify the current pedagogical guidelines related to oral cancer and discuss more efficient new methodological forms of teaching on the subject with the scholars in order to increase the knowledge of academics during their formation.

REFERENCES

1 INSTITUTO NACIONAL DE CÂNCER JOSÉ ALENCAR GOMES DA SILVA. **Estimativa 2016** – incidência de câncer no Brasil.Rio de Janeiro, 2015. Disponível em: http://www.inca.gov.br/estimativa/2016/estimativa-2016-v11.pdf

2 SANTOS, I. V.; ALVES, T. D. B.; FALCÃO, M. M. L.; FREITAS, V. S. O papel do cirurgião-dentista em relação ao câncer de boca. **Odontologia Clínico-Científica (Online)**, v. 10, n. 3, p. 207-210, 2011. Disponível em: http://revodonto.bvsalud.org/scielo.php?script=sci_arttext&pid=S1677-38882011000300003

3 AUGUSTO, T. A. Medidas preventivas do câncer bucal – Revisão de literatura. **Prêmio Colgate Profissional Prevenção na área de saúde bucal**, 2007. Disponível em: http://www.colgateprofissional.com.br/LeadershipBR/NewsArticles/NewsMedia/1PremioColgateProfissional_1.pdf

4 BENVENUTTI, E.V.; PRESSI, T.; FREDDO, S.L.; ZASSO, F.M.; FREDDO, A.L.; SIGNOR, E. Conhecimento dos Cirurgiões-dentistas das Unidades Básicas de Saúde do Município de Chapecó-sc sobre câncer bucal: um alerta ao diagnóstico precoce. **Tecnológica**, v. 2, n. 1, p. 153-162, 2015. Disponível em:http://www.uceff.com.br/revista/index.php/revista/article/view/51

5. MARTINS, M.A.T.; MARQUES, F, G.O.A.; PAVESI, V.C.S.; ROMÃO, M.M.A.; LASCALA, C.A.; MARTINS, M.D. Avaliação do conhecimento sobre o câncer bucal entre universitários. **Revbrascircabeca pescoço**, v. 37, n. 4, p. 191-7, 2008. Disponível em: http://www.sbccp.org.br/wp-content/uploads/2014/11/artigo_03.pdf

6. ANGHEBEN, P.F.; SALUM, F.G.; CHERUBINI, K.; FIGUEIREDO, M.A.Z. Perfil de conhecimento sobre câncer bucal dos alunos da Faculdade de Odontologia da Pontifícia Universidade Católica do Rio Grande do Sul. **Revista Odontológica do Brasil Central**, v. 22, n. 60, 2013. Disponível em: http://www.robrac.org.br/seer/index.php/ROBRAC/article/view/746

7. PEREIRA, C.C.T.; DIAS, A.A.; MELO, N.S.; JUNIOR, C.A.L.; DE OLIVEIRA, E.M.F. Abordagem do câncer da boca: uma estratégia para os níveis primário e secundário de atenção em saúde. **Cadernos de Saúde Pública**, v. 28, p. s30-s39, 2012. Disponível em: http://www.producao.usp.br/handle/BDPI/38946

8. PINHEIRO, S.M.S.; CARDOSO, J.P.; PRADO, F.O. Conhecimentos e diagnóstico em câncer bucal entre profissionais de odontologia de Jequié, Bahia. **Revista Brasileira de Cancerologia**, v. 56, n. 2, p. 195-205, 2010. Disponível em:http://observatorio.faculdadeguanambi.edu.br/wp-content/uploads/2015/04/Pinheiro-et-al-2010.pdf

9. LAMIN, C.D.A.; DA SILVA, M.A.M.; DE SOUZA, M.C.A. Conhecimento dos acadêmicos do Curso de Odontologia da USS sobre os fatores de risco para o câncer bucal. **Revista Pró-UniverSUS**, v. 2, n. 2, p. 05-16, 2011. Disponível em:http://editorauss.uss.br/index.php/RPU/article/download/330/463

10. NEVILLE, B.W.; DAMM, D.D.; ALLEN, C.M.; BOUQUOT, J.E. **Patologia Oral e Maxilofacia**l. Trad.3a Ed., Rio de Janeiro: Elsevier, 2009.

11. DA SILVEIRA, E.J.D.; LOPES, M.F.F.; SILVA, L.M.M.; RIBEIRO, B.F.; LIMA, K.C.; QUEIROZ, L.M.G. Lesões orais com potencial de malignização: análise clínica e morfológica de 205 casos. **J. bras. patol. med. lab**, v. 45, n. 3, p. 233-238, 2009. Disponível em: http://www.redalyc.org/pdf/3935/393541948008.pdf

12. TOMO, S.; MAINARDI, E.C.; BOER, N.P.; SIMONATO, L.E. Avaliação do conhecimento dos cirurgiões dentistas em relação ao câncer de boca. **Arquivos de Ciências da Saúde**, v. 22, n. 2, p. 46-50, 2015. Disponível em:http://www.cienciasdasaude.famerp.br/index.php/racs/article/view/142

13. DE OLIVEIRA, J. M. B.; PINTO, L.O.; LIMA, N.G.M.; DE ALMEIDA, G.C.M. Câncer de boca: avaliação do conhecimento de acadêmicos de Odontologia e Enfermagem quanto aos fatores de risco e procedimentos de diagnóstico. **RevBrasCancerol,** v. 59, n. 2, p. 211-8, 2013. Disponível em: http://pesquisa.bvsalud.org/aleitamentomaterno/resource/pt/sus-25465

14. DIB, L.L.; SOUZA, R.S.; TORTAMANO, N. Avaliação do conhecimento sobre câncer bucal entre alunos de Odontologia, em diferentes unidades da Universidade Paulista. **J. Health Sci. Inst**, v. 23, n. 4, 2005. Disponível em: http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/ /iah.

15. FALCÃO, M.M.L.; ALVES, T.D.B.; FREITAS, V.S.; COELHO, T.C.B. Conhecimento dos cirurgiões-dentistas em relação ao câncer bucal. **RGO. Revista Gaúcha de Odontologia (Online)**, v. 58, n. 1, p. 27-33, 2010. Disponível em:http://revodonto.bvsalud.org/scielo.php?pid=S1981-86372010000100006&script=sci_arttext&tlng=pt

16. DE MORAIS, T. M. N.**Câncer de boca: Avaliação do conhecimento dos cirurgiões dentistas quanto aos fatores de risco e procedimentos de diagnóstico**. 2003. Tese de Doutorado. Universidade de São Paulo. Disponível em: http://www.teses.usp.br/teses/disponiveis/23/23138/tde-25032004-123308/en.php

17. ALVARENGA, M. L.; COUTO, M. G.; RIBEIROO, A. D. O.; MILAGRES, R. C. M.; MESSORA, M. R.; KAWATA, L. T. Avaliação do conhecimento dos cirurgiões-dentistas quanto ao câncer bucal. **RFO UPF**, v. 17, n. 1, p. 31-35, 2012. Disponível em: http://revodonto.bvsalud.org/scielo.php?pid=S1413-40122012000100006&script=sci_arttext

18. ANDRADE, S. N.; MUNIZ, L. V.; SOARES, J. M. A.; CHAVES, A. L. F.; RIBEIRO, R. I. M. D. A. Câncer de boca: avaliação do conhecimento e conduta dos dentistas na atenção primária à saúde. **Revistas**, v. 71, n. 1, p. 42, 2014. Disponível em: http://revista.aborj.org.br/index.php/rbo/article/view/489

19. VASCONCELOS, E.M. **Comportamento dos cirurgiões- dentistas das Unidades Básicas de Saúde do município de São Paulo quanto à prevenção e ao diagnóstico precoce do câncer bucal**. (Dissertação de Mestrado). São Paulo: Faculdade de Odontologia da USP; 2006. Disponível em: http://www.teses.usp.br/teses/disponiveis/23/23139/tde-30102006-155849/en.php