

Maria Radman¹, Ana Glavina¹, Ivan Sabol², Marinka Mravak-Stipetić¹

Znanje studenata četvrte i pete godine studija dentalne medicine o raku usne šupljine

Knowledge of Oral Cancer among the Fourth and Fifth Year Dental Students

¹ Zavod za oralnu medicinu Stomatološkog fakulteta Sveučilišta u Zagrebu, Hrvatska
Department of Oral Medicine, School of Dental Medicine, University of Zagreb, Zagreb, Croatia

² Institut Ruder Bošković u Zagrebu, Hrvatska
Ruder Bošković Institute, Zagreb

Sažetak

Uvod: Podatci iz literature pokazuju nedovoljno znanje i svijest o raku usne šupljine među studentima dentalne medicine i medicine. **Cilj:** Željelo se procijeniti znanje i svjesnost studenata završnih godina studija dentalne medicine o raku usne šupljine, njegovoj prevenciji i ranom otkrivanju. Također se željela utvrditi učestalost studenata pušača među studentima dentalne medicine i koliko njihov pušački status utječe na stajalište prema pušenju kao rizičnom čimbeniku za razvoj raka usne šupljine. **Ispitanici i metode:** Ispitna skupina sastojala se od ukupno 83 studenata četvrte i pete godine studija dentalne medicine koji su odgovarali na 16 pitanja iz izvornog upitnika. **Rezultati:** Više od polovine studenata smatra da je njihovo znanje o raku usne šupljine dobro, četvrtina da je loše, a samo su dva studenta ocijenila svoje znanje *izvrsnim*. Više studenata pete godine pušači su u odnosu prema studentima četvrte godine (39,5 % vs. 22,5 %). Veći postotak studenata nepušača u odnosu prema studentima pušačima označio je prestanak pušenja kao važnu preventivnu mjeru (nepušači 91,2 %, pušači 84,3 %, $p = 0,01$). **Zaključak:** Većina studenata četvrte i pete godine studija procjenjuje svoje znanje o raku usne šupljine dobrim, iako velik broj studenata obiju godina smatra benignu vlasastu leukoplakiju potencijalno malignim stanjem. Studenti nepušači smatraju prestanak pušenja važnom preventivnom mjerom, za razliku od studenata pušača.

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Adresa za dopisivanje

prof. dr. sc. Marinka Mravak-Stipetić
Sveučilište u Zagrebu
Stomatološki fakultet
Klinika za stomatologiju KBC-a Zagreb
Klinički Zavod za oralnu medicinu
Gundulićeva 5, 10 000 Zagreb,
Hrvatska
tel. +38514802114
mravak@sfzg.hr

Ključne riječi

rak usne šupljine; studenti stomatologije; zdravstvene spoznaje stavovi i praksa

Uvod

Rak usne šupljine ubraja se među deset najčešćih zloćudnih tumora s uglavnom lošom prognozom (1). Prema podacima GLOBOCAN-a, u svijetu je 2012. od raka usnica / raka usne šupljine oboljelo oko 300400 ljudi. Najveća učestalost zabilježena je u jugoistočnoj Aziji (6,4 na 100 000) (2). Maligne bolesti među vodećim su javnozdravstvenim problemima u Hrvatskoj – u 2014. godini registrirana su 21 434 novooboljela pacijenta od raka u oba spola – među njima zabilježeno je 890 novih slučajeva raka usne šupljine, od kojih 746 kod muškaraca (3).

Više od 90 % svih slučajeva raka usne šupljine jest rak pločastih stanica koji može nastati iz potencijalno malignih poremećaja (PMD) koji uključuju oralnu leukoplakiju, eritroplakiju i eritroleukoplakiju ili verukoznu leukoplakiju, ali mogu se pojaviti i na naizgled normalnoj oralnoj sluznici (4). Uz pušenje i alkohol, koji su odavno prepoznati kao glavni rizični čimbenici, sve veće epidemiološko značenje pripisuje se infekciji humanim papiloma virusom (HPV-om) čiji visokorizični genotipovi nose visok kancerogeni potencijal (5, 6).

Introduction

Oral cancer is among the ten most common malignant tumors in people worldwide mainly with a poor prognosis (1). According to the data of GLOBOCAN, about 300,373 people in the world were affected by lip/oral cavity cancer in 2012. The highest frequency is recorded in the South-East Asia region (6.4 per 100,000) (2). Malignant diseases are among the leading public health problems in Croatia. In the year 2014, 21,434 new cancer cases in both sexes were registered among which 890 new cases of oral cancer out of which 746 were males (3).

More than 90% of oral cancers are squamous cell carcinomas (SCC), which may arise from the potentially malignant disorders (PMDs) which include oral leukoplakia, erythroplakia and erythroleukoplakia, or verrucous leukoplakia, but can also develop in apparently normal tissue (4). In addition to smoking and alcohol, which have long been recognized as major risk factors, increasing epidemiological significance is attributed to human papillomavirus (HPV) infection the high risk genotypes of which carry a high carcinogenic potential (5, 6).

Rak usne šupljine pojavljuje se učestalije u srednjoj i starijoj dobi (medijan 62 godine), no sve veća pojavnost u mlađim dobnim skupinama nameće potrebu ozbiljnijeg pristupa pregledu usne šupljine sa svrhom što ranijeg otkrivanja zloćudnih promjena na oralnoj sluznici. Pravodobna dijagnostika u najvećem broju slučajeva omogućuje izlječenje i dugotrajno preživljenje oboljelih. Literaturni podatci pokazuju nedovoljno znanje o raku usne šupljine među studentima dentalne medicine i medicine, ali i među liječnicima obiteljske medicine pa čak i među doktorima dentalne medicine (7–10).

Iako je usna šupljina lako dostupna pregledu, istraživanja pokazuju da se u više od polovice slučajeva intraoralni karcinom otkriva kasno i da neki slučajevi ostaju neprepoznati. Zato je važno tijekom studija steći znanje o raku usne šupljine i razviti svijest o potrebi ranog otkrivanja potencijalno malignih poremećaja na oralnoj sluznici, što uključuje rutinski pregled svih regija oralne sluznice i vratnih limfnih čvorova tijekom svakoga stomatološkog pregleda (8–17).

Zato je primarni cilj ovog istraživanja bio utvrditi znanje o raku usne šupljine, ali i svjesnost o prevenciji i ranom otkrivanju te bolesti među studentima viših godina studija dentalne medicine.

Specifični ciljevi bili su: usporediti znanje studenata četvrte i pete godine studija, usporediti stajališta studenata pušača i nepušača o pušenju kao o rizičnom čimbeniku za razvoj raka, usporediti stajališta o prevenciji i liječenju raka studenata koji svoje znanje ocjenjuju dobrim u odnosu prema onima koji svoje znanje ocjenjuju lošim.

Ispitanici i postupci

Ispitna skupina sastojala se od ukupno 83 studenta četvrte i pete godine studija dentalne medicine koji su pismeno odgovarali na 16 pitanja iz upitnika koji je sastavljen i modificiran prema upitniku Cartera i Ogdena (7) (prilog 1.). Upitnik se sastojao od triju skupina pitanja. Prva se odnosila na znanje studenata o etiologiji i topografiji raka usne šupljine, druga na samoprocjenu informiranosti o ranoj dijagnostici i prevenciji raka usne šupljine tijekom nastave, a treća na postupke prevencije i liječenja tih bolesnika. Studenti su odgovorili i na pitanje jesu li pušači. Namjera pitanja bila je utvrditi prevalenciju pušenja među studentima i ispitati eventualni utjecaj pušačkog statusa na stajalište o pušenju kao o rizičnom čimbeniku za nastanak raka usne šupljine.

Provedbu istraživanja odobrilo je Etičko povjerenstvo Stomatološkog fakulteta Sveučilišta u Zagrebu, a obavljalo se od travnja do srpnja 2016. godine. Svi ispitanici potpisali su prije početka informiranu suglasnost. Studenti su dobrovoljno i anonimno sudjelovali u anketi. Upitnici su im podijeljeni nakon nastave, a ispunjavanje je trajalo oko 15 minuta. Rezultati su analizirani primjenom chi-square testa u programu Medcalc (v11, MedCalc software, Belgija), a statistička značajnost postavljena je na $p < 0,05$.

Most commonly, oral cancer occurs in middle aged and elderly adults (median 62 years), but the increasing occurrence among younger individuals imposes a more serious approach to the examination of the oral cavity with the aim of early detection of malignant changes in the oral mucosa. When patients are diagnosed in a timely manner they have the best chance for cure and long-term survival. The literature data show insufficient knowledge of oral cavity cancer among dental and medical students, but also among family physicians and even dentists (7–10).

Although the oral cavity is readily available for examination, studies show that over half of the cases of intraoral cancer are discovered late and that some cases remain unrecognized. It is important during the course of dental medicine study that students gain knowledge on oral cavity cancers and develop awareness of the need for early detection of PMDs on oral mucosa including a routine examination of all oral mucosa regions and cervical lymph nodes at each dental examination (8–17).

Therefore, the primary objective of this study was to assess the knowledge of graduating dental students regarding oral cancer and to assess their awareness of the prevention and early detection of oral cancer.

Specific objectives were to:

- compare the knowledge of students of fourth and fifth years of study
- compare attitudes of smokers and non-smokers among students towards the risk of smoking
- compare attitudes towards prevention and treatment of cancer of students who evaluate their knowledge poor in relation to those who consider their knowledge to be good.

Subjects and Methods

The study group consisted of 83 students of fourth and fifth years of dental medicine study of whom the informed consent was obtained who were expected to answer all items in a list in the original 16-item questionnaire that was developed by Carter and Ogden (7) and modified (Appendix 1). This questionnaire consisted of 3 groups of questions. The first group referred to the knowledge of the students on etiology and topography of oral cavity cancer, the second group referred to self-assessment of early diagnosis and oral cancer prevention during the course, and the third group referred to procedures for prevention and treatment of patients with oral cancer. The students were also asked whether they were smokers or not. The intention was to determine the prevalence of smoking among dental students and to examine a possible impact of smoking status on their attitude towards smoking as a risk factor for development of oral cancer.

This study has been approved by the Ethics Committee of the School of Dental Medicine University of Zagreb and was conducted from April to July in 2016. All participants had previously signed a written informed consent. The students participated in the survey voluntarily and anonymously. After the classes, the students were asked to fill in a questionnaire, which lasted about 15 minutes. The results were analyzed using a chi-square test in Medcalc (v11, MedCalc software, Belgium) and statistical significance was determined with $p < 0.05$.

Rezultati

U istraživanju su sudjelovali studenti četvrte i pete godine studija dentalne medicine u dobi od 21 do 28 godina (medijan 24 godine) koji su popunili upitnike. Znanje o raku usne šupljine mogli su steći na predavanjima i vježbama iz opće patologije, onkologije, oralne kirurgije i oralne medicine.

Četvrtu godinu predstavljalo je 40 studenata – 7 mladića (17,5 %) i 33 djevojke (82,5 %), a prosječna dob bila je 23 godine (raspon od 21 do 26 godina). U skupini pete godine, od ukupno 43 studenta, bilo je 14 mladića (25,3 %) i 29 djevojaka (74,7 %) u dobi od 23 do 28 godina (medijan 24 godine). Na pitanje jesu li pušači potvrdno je odgovorilo 26 studenata. Mladići su češći pušači negoli djevojke (66,7 % vs. 19,3 %). Studenti pete godine također češće puše u odnosu prema studentima četvrte godine (39,5 % vs. 22,5 %).

U ovom istraživanju htjeli smo ispitati eventualni utjecaj pušačkog statusa na stajališta o pušenju kao o rizičnom čimbeniku za nastanak raka usne šupljine. Usporedbom odgovora pušača i nepušača nismo našli statistički značajnu razliku o stajalištu prema pušenju i njihovu znanju o pušenju kao o rizičnom čimbeniku za nastanak raka usne šupljine. Međutim, veći postotak nepušača u odnosu prema pušačima označio je prestanak pušenja kao važnu preventivnu mjeru (nepušači 91,2 %, pušači 84,3 %, $p = 0,01$).

Tablica 1. pokazuje distribuciju odgovora na pitanje o samoocjeni znanja o raku usne šupljine. Nešto više od polovice studenata svoje znanje smatra dobrim, četvrtina se ocjenjuje lošom ocjenom, a samo dva studenta svoje su znanje ocijenili izvrsnim. Ostali studenti (15,66 %) svoje znanje smatraju vrlo dobrim. Kad je riječ o samoocjeni znanja, nije bilo značajne razlike između studenata četvrte i pete godine.

Znanje o raku usne šupljine ispitivalo se na temelju pet pitanja (pitanja od tri do sedam). U odgovorima studenata četvrte i pete godine nema značajnih razlika. Na treće pitanje – ubraja li se rak usne šupljine među deset najčešćih lokalizacija raka – 80 % ispitanika točno je odgovorilo. Sličan rezultat dobiven je i na četvrto pitanje o najčešćoj vrsti raka na koje je točno odgovorilo 82,5 % studenata. Na pitanje o prognostičkom značenju lokalizacije raka usne šupljine, studenti su najčešće označili jezik.

Results

The students of the fourth and fifth years of dental medicine study, aged 21- 28 years (median 24 years) participated in the study and filled out the questionnaire. The students gained knowledge of oral cancer through general pathology, oncology, oral surgery and oral medicine courses and clinical lectures.

The fourth year of dental medicine study was represented by 40 students, including 7 men (17.5%) and 33 women (82.5%), average age 23 years (range 21 - 26 years). In the fifth year, out of a total of 43 students, there were 14 men (25.3%) and 29 women (74.7%) aged 23 – 28 years (median 24 years). Twenty six students responded positively to the question of whether they were smokers or not. Men were more frequent smokers than women (66.7% vs. 19.3%). Likewise, students of the fifth year were more likely to be smokers compared to the fourth year students (39.5% vs. 22.5%).

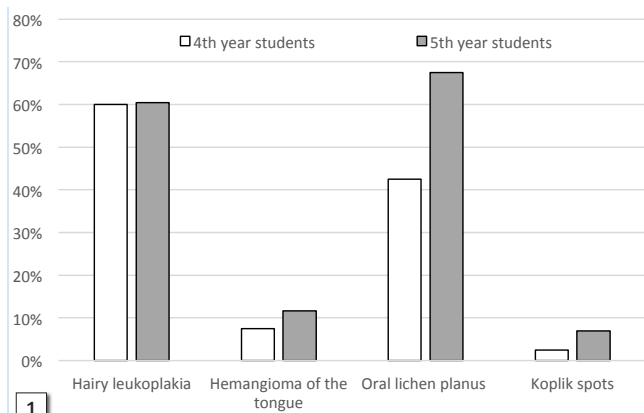
In this study, we aimed to investigate into a possible impact of students smoking status on their attitude towards smoking as a risk factor for oral cancer. By comparing the smokers' and non-smokers' responses we did not find a statistically significant difference in the attitude regarding smoking among the students and their knowledge of smoking as a risk factor for oral cancer. However, a slightly higher percentage of non-smokers than smokers had marked 'stop smoking' as an important preventive measure (non-smokers 91.2%, smokers 84.3%, $p = 0.01$).

Table 1 shows the distribution of responses to the question of self-assessment of the knowledge about oral cavity cancer. More than half of the students considered their knowledge to be good, a quarter of them regarded their knowledge as being poor, and only 2 students have rated their knowledge positively as 'excellent'. Other students (15.66%) considered their knowledge to be very good. Regarding the self-assessment, there were no any significant differences between the students of fourth and fifth years.

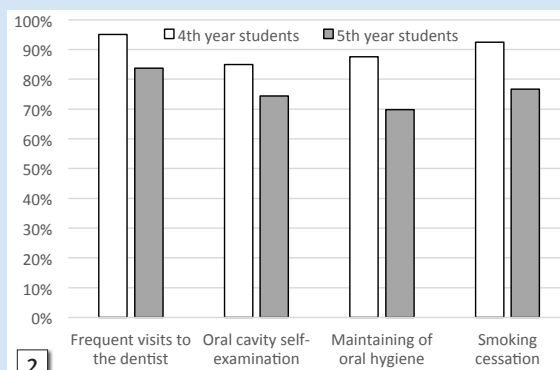
Knowledge of oral cavity cancer was investigated through five questions (questions three to seven). There were no significant differences in responses between the students of fourth

Tablica 1. Samoocjena znanja o raku usne šupljine
Table 1 Self-assessment of students' knowledge on oral cancer

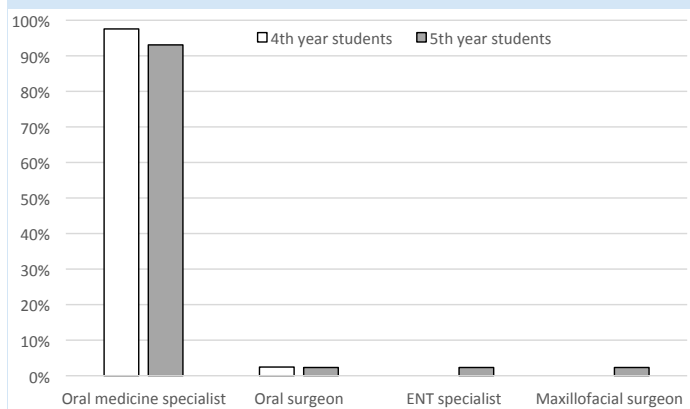
Ocjena Grade	Studenti 4. godine 4 th year students		Studenti 5. godine 5 th year students		Ukupno Total	
	N	%	N	%	N	%
Vrlo loše • Very poor	1	2.50	2	4.65	3	3.61
Loše • Poor	12	30.00	7	16.28	19	22.89
Dobro • Good	24	60.00	22	51.16	46	55.42
Vrlo dobro • Very good	2	5.00	11	25.58	13	15.66
Izvršno • Excellent	1	2.50	1	2.33	2	2.41
Ukupno • Total	40	100.00	43	100.00	83	100.00



1



2



3

Slika 1. Promjene u usnoj šupljini koje studenti navode kao potencijalno zloćudna stanja

Figure 1 Lesions of the oral mucosa that students consider as PMD

Slika 2. Preventivne mjere za smanjenje rizika nastanka oralnog karcinoma

Figure 2 Preventive measures which students have identified to decrease the risk for oral cancer

Slika 3. Specijalist kojemu bi studenti uputili bolesnika s potencijalno zloćudnom lezijom usne šupljine

Figure 3 The specialist to whom the students would refer the patient with PMD

Na šesto pitanje o potencijalno malignim poremećajima većina studenata navela je vlasastu leukoplakiju i oralni lichen planus (slika 1.).

Među rizičnim čimbenicima studenti kao najčešće navode pušenje i alkohol te vlasastu leukoplakiju i infekciju HPV-om. Zanimljivo je da većina studenata obiju godina smatra benignu vlasastu leukoplakiju potencijalno malignim poremećajem. Također više studenata četvrte godine smatra HPV i vlasastu leukoplakiju važnim čimbenikom rizika u odnosu prema studentima pete godine. No ta razlika nije statistički značajna.

U pitanju koje se odnosi na zadovoljstvo dobivenim informacijama tijekom nastave o raku usne šupljine postoji statistički značajna razlika jer 39,5 % studenata pete godine smatra da su dovoljno informirani za razliku od 15 % studenata četvrte godine ($p = 0,01$).

Na deveto pitanje – *Koliko ste tijekom studija imali mogućnost samostalno pregledati bolesnika s potencijalno malignim poremećajima i kanceroznim lezijama*, većina studenata (81,93 %) odgovorila je – nikad. Četiri studenta četvrte godine i devet studenata pete godine pregledalo je bolesnike manje od pet puta, a samo dva studenta pete godine imala su mogućnost pregleda od pet do deset puta.

Studenti pete godine češće preventivno razgovaraju s pacijentima, u odnosu prema studentima četvrte godine. Većina studenata pete godine (58,13 %) pozitivno je odgovorila na pitanje broj deset u odnosu prema 14 studenata četvrte godine (41,3 %), što je značajno češće ($p = 0,035$). Velika veći-

and fifth years. When asked the question three whether oral cavity cancer is among the ten most common cancers, 80% of respondents answered positively. Similarly, when asked the question four about the most common types of cancer, 82.5% of respondents answered correctly. When asked about the prognostic significance of localization of oral cancer, the majority of students marked the tongue.

According to students' responses, the most common risk factors are smoking and alcohol consumption, hairy leukoplakia and HPV infection. Interestingly, when asked the question six, a large number of students of both years considered a benign hairy leukoplakia and oral lichen planus as PMD ((Figure 1). Also, a large number of the fourth year students considered HPV and hairy leukoplakia an important risk factor compared to the fifth year students. However, this difference is not statistically significant.

Regarding the satisfaction with the information obtained during lectures on oral cancer, there is a statistically significant difference since 39.5% of fifth year students stated that they were sufficiently informed as opposed to 15% of fourth year students ($p = 0.01$).

Regarding the question nine, "How many times during the study you had the opportunity for independent examination of patients with PMDs and cancerous lesions?" most of the students (81.93%) responded negatively. Four students of the fourth year and nine of the fifth year examined patients less than five times, and only two students of the fifth year had the opportunity to examine them five to ten times.

na studenata (97,6 %) smatra da je informiranost pacijenata o raku usne šupljine loša ili vrlo loša. Samo dva studenta pete godine misle da su pacijenti dobro ili vrlo dobro informirani o toj malignoj bolesti.

Kad je riječ o preventivnim mjerama, nešto veći broj studenata četvrte godine navodi prestanak pušenja i česte kontrolne preglede kod stomatologa kao važnu preventivnu mjeru (92,5 % vs. 76,8 %). U ostalim odgovorima nema razlike između ispitivanih skupina (slika 2.).

Velika većina anketiranih ispitanika smatra da treba pregledati sve regije usne šupljine i palpirati vratne limfne čvorove. U pitanju 15 – *Komu biste uputili bolesnika s potencijalno zloćudnim poremećajem*, gotovo svi studenti odgovorili su specijalistu oralne medicine (slika 3.).

Posljednje pitanje odnosilo se na trajanje liječenja potencijalno zloćudnih poremećaja. Studenti su skloniji dugotrajnom liječenju (za šestomesečno liječenje odlučilo se 27,7 %, a za razdoblje dulje od godinu dana 38,6 %).

Rasprava

Rezultati ovog istraživanja pokazali su da studenti četvrte i pete godine ocjenjuju svoje znanje o raku usne šupljine u većini ocjenom dobar. Studenti pete godine bolje su informirani o raku usne šupljine, češće su pregledavali bolesnike i vodili preventivne razgovore s bolesnicima, u odnosu prema studenima četvrte godine. Zanimljivo je da u teoretskom znanju studenti četvrte godine ne zaostaju za svojim starijim kolegama.

Primjerice, na pitanje o rizičnim čimbenicima studenti četvrte i pete godine podjednako ističu pušenje i alkohol, što je napredak u usporedbi sa sličnim istraživanjem doktorice Lončar – Brzak i suradnika iz 2012. godine (15) kada je malo studenata četvrte godine prepoznalo alkohol kao rizični čimbenik. Također podjednako važnim rizičnim čimbenikom smatraju infekciju HPV-om. No zanimljivo je da su studenti obiju godina benignu vlasastu leukoplakiju izdvojili kao potencijalno zloćudni poremećaj, što upućuje na potrebu boljeg poznavanja i razlikovanja klinički sličnih lezija različitog uzroka i prognoze te na dopunu znanja tijekom nastavnog procesa. Soares i suradnici (17) također su ustanovili da studenti ne prepoznaju dovoljno kliničke značajke oralnih lezija, unatoč dobrom poznavanju etiologije raka usne šupljine i svijesti o nužnosti temeljitog pregleda oralne sluznice. Zato je nužna dopuna znanja o diferencijalnoj dijagnozi oralnih lezija tijekom nastavnog procesa. Jednako tako važno je usvojiti znanje o što ranijem upućivanju bolesnika s potencijalno zloćudnim poremećajem kako bi se olakšala daljnja dijagnostika i liječenje ako, unatoč provedenom liječenju, lezija ne zacijeli u roku od tjedan dana.

U ovom istraživanju studenti su odgovorili i na pitanje jesu li pušači. Namjera pitanja bila je utvrditi prevalenciju pu-

The students of the fifth year talked with patients about prevention more often than fourth year students. The vast majority of fifth year students (58.13%) responded positively to question number ten compared to 14 students of the fourth year (41.3%), which is significantly more frequent ($p = 0.035$). The vast majority of students (97.6%) believed that patients were insufficiently or very poorly informed about oral cancer. Only two of the fifth year students stated that patients were sufficiently informed or well informed about oral cancer.

In terms of preventive measures, a slightly larger number of fourth year students stated smoking cessation and frequent visits to dentists as an important preventive measure (92.5% vs. 76.8%). There were no differences among the examined groups regarding other responses (Figure 2).

The vast majority of the survey respondents believed that all regions of the oral cavity and cervical lymph nodes should be examined. Regarding the question 15, "To whom would you refer patients with PMDs?" almost all students answered "to a specialist of oral medicine" (Figure 3).

The last question involved duration of treatment of PMDs. The students were more inclined to long-term treatments (27.7% of students stated that a six months treatment is needed and 38.6% stated that patients should be treated for a period longer than a year).

Discussion

The results of this study showed that students of the fourth and fifth year of study rated their knowledge on oral cancer mostly as good. The students of the fifth year were better informed about oral cancer, more often assessed the patients, and were having preventive conversations with the patients compared to the fourth year students. Concerning the theoretical knowledge, it is interesting that the students of the fourth year of study do not lag behind their more advanced fellow students.

For example, responding to the question of risk factors, the students of the fourth and fifth year recognized smoking and alcohol as equally important risk factors, which is a progress compared to similar research by Lončar-Brzak *et al.* from 2012 (15) in which only a few students of the fourth year recognized alcohol as a risk factor. They also considered a HPV infection to be an equally important risk factor. However, it is interesting that students of both years have identified benign hairy leukoplakia as PMD, thus pointing to a need for better knowledge and differentiation of clinically similar lesions during clinical lectures and oral examination. Soares *et al.* (17) have also found that students do not sufficiently recognize clinical features of oral lesions despite good knowledge of etiology of oral cancer and awareness of the need for a thorough oral examination. Therefore, a supplementation of knowledge of differential diagnosis of oral lesions is needed during the teaching process. It is equally important to gain knowledge from earlier referrals of patients with suspected lesions to facilitate further diagnostics and treatment if no healing of the lesion occurs within a week.

In this study, the students also responded to the question regarding their smoking habits. The purpose of this question

šenja među studentima i ispitati eventualni utjecaj pušačkog statusa na stajalište o pušenju kao o rizičnom čimbeniku za nastanak raka usne šupljine. Trećina studenata izjasnila se da su pušači, a među njima češći pušači su muškarci u odnosu prema ženama. Isto tako studenti pete godine češće puše u usporedbi sa studentima četvrte godine. Udio pušača među studentima nešto je niži negoli u općoj populaciji odgovarajuće dobi, ali ipak zabrinjavajuće visok (4). Usporedbom odgovora pušača i nepušača nismo našli statistički značajnu razliku u stajalištu o pušenju kao o rizičnom čimbeniku. No veći postotak nepušača u odnosu prema pušačima označio je prestanak pušenja kao važnu preventivnu mjeru. Takvo stajalište potvrđuje da su studenti nepušači realniji u iskazivanju gledišta prema pušenju kao o rizičnom čimbeniku za nastanak raka usne šupljine. Stoga je potreban mnogo konstruktivniji pristup i edukacija studenata o štetnim učincima duhana te o prednostima prestanka pušenja u prevenciji bolesti i liječenju tijekom nastavnog procesa jer je nepušaču mnogo lakše promicati i zagovarati apstinenciju od pušenja među pacijentima.

Nešto više od polovice studenata obiju godina svoje znanje o raku usne šupljine smatra dobrim, četvrtina se ocjenjuje lošom ocjenom, a tek malo njih daje si vrlo dobru ili odličnu. Nismo našli statistički značajnu razliku u odgovorima između studenata koji svoje znanje smatraju lošim u odnosu prema onima koji svoje znanje ocjenjuju dobrim, vrlo dobrim ili odličnim.

Kad je riječ o zadovoljstvu nastavom o raku usne šupljine, značajno više studenata pete godine smatra da su dovoljno informirani za razliku od malobrojnih studenata četvrte godine. Isto tako su studenti pete godine imali mnogo više mogućnosti pregledavati bolesnika s rakom ili lezijama oralne sluznice te razgovarati s pacijentima o izbjegavanju rizičnih čimbenika i provođenju preventivnih mjera, u odnosu prema studentima četvrte godine. Ta se razlika lako može objasniti činjenicom da studenti više godine imaju znatno veću satnicu kliničkih vježbi iz oralne medicine. Naši rezultati podudaraju se s rezultatima sličnih istraživanja koja su također pokazala da studenti viših godina imaju veće znanje o raku usne šupljine. Imaju i razvijeniju svijest o rizičnim čimbenicima, a dobro je poznata činjenica da je svijest o rizičnim čimbenicima preduvjet za prevenciju raka usne šupljine (8–16).

Velika većina studenata smatra da je informiranost pacijenata slaba ili vrlo slaba, što nameće zaključak da su potrebni edukativni programi. Tiskanje letaka, videoprezentacije, ali i preventivni razgovori tijekom svakoga stomatološkog pregleda znatno bi poboljšali znanje i svijest pacijenta o raku usne šupljine. Tomu u velikoj mjeri mogu pridonijeti studenti aktivnim sudjelovanjem tijekom nastave u akcijama besplatnih pregleda za rano otkrivanje raka usne šupljine koje se organizira na Stomatološkom fakultetu tijekom Svjetskog tjedna svjesnosti o raku usne šupljine.

Kad je riječ o preventivnim mjerama, većina studenata obiju godina navodi redovite stomatološke preglede, prestanak pušenja i održavanje oralne higijene. Većina studenata smatra da pri svakom oralnom pregledu treba pregledati sve regije usne šupljine. Potrebno je također palpirati vratne limfne čvorove. Gotovo svi studenti uputili bi bolesnika s poten-

was to determine the prevalence of smoking among students and to examine a possible impact of smoking status on the attitude towards smoking as a risk factor for development of oral cancer. One third of the students stated that they were smokers, and among them more common smokers were men than women. Likewise, the students of the fifth year were more likely to smoke compared with the fourth year students. The rate of smokers among the students is somewhat lower than that among smokers in the general population of the same age but it still remains worrisome (4). By comparing the smokers' and non-smokers' responses we did not find a statistically significant difference in the smoking attitude and their perception of smoking as a risk factor. However, a higher percentage of non-smokers than smokers considered smoking cessation an important preventive measure. This attitude confirms the attitude of students regarding smoking as risk factor for oral cancer. Therefore, a more constructive approach and education of students about the harmful effects of tobacco and benefits of smoking cessation in the disease prevention and treatment during teaching process should also be featured because it is much easier for non-smokers to promote and advocate smoking abstinence among patients.

More than a half of the students of both years rated their knowledge on oral cancer as good, a quarter of them rated it as poor, and only a small number of students considered their knowledge to be very good or excellent. We have not found a statistically significant difference in the responses among the students who considered their knowledge poor compared to those who evaluated their knowledge as being good, very good, or excellent.

Regarding the satisfaction with oral cancer education, a significantly larger number of fifth year students stated that they were sufficiently informed, unlike a small number of fourth year students. Likewise, the fifth year students had better opportunities to examine patients with cancer or those with oral mucosa lesions, as well as talk to patients about avoiding risk factors and taking preventive measures compared to the fourth year students. This difference is easily explained by the fact that students of more advanced years of dental study attend a considerably larger number of oral medicine clinical lectures. Our results coincide with those of similar studies, which also showed that students of more advanced years of study had greater knowledge of oral cancer. Also, they had a more developed awareness about risk factors and it is a well-known fact that awareness regarding risk factors is a prerequisite for the prevention of oral cancer (8–16).

The vast majority of students believed that patients were insufficiently or very badly informed, which implies the conclusion of the need for implementing better educational programs. Leaflet printing, video presentations as well as preventive interviews at each dental examination would significantly improve the knowledge and awareness of oral cancer patients. Students themselves can greatly contribute to these efforts through their active participation in specific activities, for example free examinations for early detection of oral cavity cancers organized at the School of Dental Medicine during the Oral Cancer World Awareness Week.

cijalno zloćudnim poremećajem specijalistu oralne medicine, što je u skladu s rezultatima sličnih istraživanja (12 – 16).

Zaključak

Iako je usna šupljina lako dostupna pregledu, u više od polovice slučajeva rak usne šupljine otkriva se kasno i neki slučajevi ostaju neprepoznati. Pravodobna dijagnostika omogućuje izlječenje i dugotrajno preživljenje oboljelih. Zato je važno tijekom studija steći znanje o potencijalno zloćudnim poremećajima oralne sluznice i njihovu značenju u razvoju raka usne šupljine. Nadalje, treba poticati svijest o potrebi ranog otkrivanja potencijalno zloćudnih poremećaja, što uključuje rutinski pregled svih regija oralne sluznice tijekom svakoga stomatološkog pregleda. Naše istraživanje pokazuje da je teorijsko znanje studenata bolje od njihovih praktičnih vještina. Zato bi trebalo povećati satnicu kliničkih vježbi. U nastavnom procesu treba razvijati komunikacijske vještine studenata uključivanjem u programe probira i savjetovanja pacijenata.

Uključivanje studenata pušača u preventivne programe važno je zbog korigiranja njihova osobnog stajališta prema pušenju kao o rizičnom čimbeniku i zagovaranja prestanka pušenja kao preventivne mjere među budućim pacijentima.

Sukob interesa

Autori nisu bili ni u kakvom sukobu interesa.

Zahvale

Autori zahvaljuju svim studentima koji su dobrovoljno sudjelovali u ovom istraživanju.

With regard to preventive measures, most students of both years have stated that regular dental examinations, smoking cessation and maintenance of oral hygiene are important preventive measures. Most of the students believed that all regions of the oral cavity should be examined at each examination. In addition to that, they stated that the major lymph nodes of the neck area should be palpated. Almost all the students claimed they would refer a patient with PMDs to oral medicine specialists, which is in line with the results of similar studies (12–16).

Conclusion

Although the oral cavity is readily available for clinical assessment, a larger proportion of patients are diagnosed with oral cancer at a late stage and some cases remain unidentified. A timely diagnosis provides the greatest chance for cure and long-term survival of the patients. Therefore, it is important that students gain knowledge about PMD of the oral mucosa and their significance in the development of oral cancer during the course of the study as well as to learn clinical criteria to differentiate clinically similar lesions. Furthermore, they need to develop awareness of the need for early detection of PMDs including routine examination of all oral mucosa areas at each dental examination. Our research shows that theoretical knowledge seems to be retained better than practical skills. Therefore, the level of practical clinical skills should be elevated. In the teaching process, communication skills of students should be developed by including them in patient screening and counseling programs.

Inclusion of the students smokers in preventive programs against smoking is important in order to self-correct their attitude towards smoking as a risk factor and advocate smoking cessation as a preventive measure among their future patients as well.

Conflict of Interest

Authors declare they have no conflict of interest.

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Abstract

Background: The literature data show insufficient knowledge and awareness about oral cancer among dental and medical students. **Objective:** To assess the knowledge of graduating dental students regarding oral cancer and to assess their awareness regarding the prevention and early detection of oral cancer. Also student's smoking status was examined aimed to investigate their attitude towards smoking as a risk factor for development of oral cancer and to assess the prevalence of smoking among dental students. **Subjects and Methods:** The study group consisted of 83 students of the fourth and fifth years of dental medicine study who answered the questions written in the original 16-item questionnaire. **Results:** More than half of the students considered their knowledge to be good, a quarter of them regarded their knowledge as being poor. Almost 16% of students considered their knowledge to be very good, whereas only two students rated their knowledge as 'excellent'. Students of the fifth year were more likely to be smokers compared to fourth year students (39.5% vs. 22.5%). Higher percentage of non-smokers than smokers had marked 'stop smoking' as an important preventive measure (non-smokers 91.2%, smokers 84.3%, $p = 0.01$). **Conclusion:** Majority of the students of fourth and fifth year of study rate their knowledge about oral cancer as good. A large number of students of both years considered hairy leukoplakia a potentially malignant disorder. Students non smokers recognize "stop smoking" as an important preventive measure unlike students smokers who show a more realistic attitude towards smoking as a risk factor for oral cancer.

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Address for correspondence

Professor Marinka Mravak-Stipetić,
DMD, MSc, PhD
University of Zagreb
School of Dental Medicine,
University Clinical Hospital Zagreb
University Dental Clinic
Clinical Department of Oral Medicine
Gundulićeva 5, 10000 Zagreb, Croatia
Tel. +38514802114
mravak@sfgz.hr

Key words

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