

# Misconceptions about Oral Diagnosis and Radiology among Dental Students: A Questionnaire Study

Ö Okumuş, ZZ Yurdabakan

Department of Oral and Dentomaxillofacial Radiology, Altınbaş University Faculty of Dentistry, Istanbul, Turkey

ABSTRACT

**Background:** Misconceptions are learning deficits that may cause clinical judgments in a dental practice to be made incorrectly. **Aim:** This study aimed to identify and look into students' misconceptions regarding Oral Diagnosis and Radiology. **Materials and Methods:** The fourth and fifth-grade students at the Altınbaş University Faculty of Dentistry were given a self-administered questionnaire that included multiple-choice questions about Oral Diagnosis/Medicine and Radiology. 106 students participated in the questionnaire and 50.9% of the participants were fourth-grade students, 49.1% of them were fifth-grade students. The questions were classified into two parts: five scenario-based questions and ten knowledge-based questions. Students' replies were evaluated for accuracy and confidence, and when a student was certain of giving an inaccurate response, misconceptions were noted. Two groups were compared using the Mann-Whitney-U test ( $P = 0.05$ ). **Results:** A total of 1590 responses were collected. Regarding the question type, scenario-based questions had more misconceptions (19.6%) than knowledge-based questions (18.4%). Depending on the question, the majority of misconceptions were seen in the questions about denture stomatitis (46.2%) and radiographic contrast (38.7%). **Conclusions:** To prevent misdiagnosis, it is essential to recognize and overcome misconceptions in Oral Diagnosis/Medicine and Radiology. Therefore this study assists students and lecturers in defining misconceptions and organizing precautions to avoid and fix them.

**KEYWORDS:** Dental education, misconceptions, oral diagnosis, oral medicine, oral radiology

**Received:** 14-Apr-2023;  
**Revision:** 04-Sep-2023;  
**Accepted:** 14-Sep-2023;  
**Published:** 04-Dec-2023

## INTRODUCTION

A misconception is an incorrect idea or perception about a subject that results from the incorrect interpretation or understanding of information.<sup>[1]</sup> The conflict between students' prior knowledge and newly learned concepts results in misconception, which causes students to misinterpret or disregard these new concepts. Students who develop misconceptions are also resistant to change, and they are challenging to recognize.<sup>[2-4]</sup> Additionally, if these misconceptions are not recognized and dispelled, students will continue to develop new ones.<sup>[1]</sup>

Critical thinking and self-evaluation abilities should be taught in dentistry, according to the American Dental Association (ADA), because they are crucial

for dental practice. To improve clinical performance, a dentist, and a dental student who can assess their level of expertise can reduce patient care errors and continue lifelong learning.<sup>[5,6]</sup> For clinical judgment and professional growth, maintaining a balance between correctness and assurance is essential since misunderstandings result from overconfidence in misconceptions.<sup>[7-9]</sup> Nonetheless, continuous misconceptions may impair learning and even cause doctors to make incorrect clinical decisions.<sup>[10-12]</sup>

**Address for correspondence:** Dr. Ö Okumuş, Department of Oral and Dentomaxillofacial Radiology, Faculty of Dentistry, Altınbaş University, Zuhuratbaba, İncirli Street, 34147, Bakırköy, Istanbul, Turkey. E-mail: dtozlemsen@gmail.com

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**For reprints contact:** WKHLRPMedknow\_reprints@wolterskluwer.com

**How to cite this article:** Okumuş Ö, Yurdabakan ZZ. Misconceptions about oral diagnosis and radiology among dental students: A questionnaire study. Niger J Clin Pract 2023;26:1659-66.

Access this article online	
Quick Response Code: 	Website: <a href="http://www.njcponline.com">www.njcponline.com</a>
	DOI: 10.4103/njcp.njcp_289_23

To provide early diagnosis and appropriate treatment of oral diseases, students must receive adequate education in both oral medicine and radiology.<sup>[13]</sup> The authors observe that in the specialty of oral radiology, poor educational practices are linked to inappropriate professional conduct. These procedures result in unnecessary high radiation exposure, inappropriate radiographs for diagnosis, and environmental harm from waste disposal due to multiple retakes. Misconceptions regarding diagnosis, treatment, and prognosis may lead to unprofessional practices in the field of oral medicine.<sup>[14]</sup>

To prevent incorrect diagnoses and injury to patients as well as the environment, misconceptions in oral medicine and radiology must be identified and eliminated. There is only one study in the literature that evaluated dental students' misconceptions in this area.<sup>[15]</sup> Therefore the goal of this study, which was conducted at a Turkish dentistry faculty, was to identify and examine students' misconceptions about Oral Diagnosis and Radiology.

## MATERIALS AND METHODS

The presented study was performed in line with Helsinki Declaration (Finland) and approved by the Clinical Research Ethical Committee of Altınbaş University (approval number: 2022/154). The study involved fourth and fifth-grade students at the Altınbaş University Faculty of Dentistry who accepted voluntary consent by signing an informed consent form. Since Oral Diagnosis and Radiology courses are taught in the 4<sup>th</sup> and 5<sup>th</sup> grades in our faculty, these students were included in the study. The courses cover topics related to oral diagnosis, oral diseases, and dentomaxillofacial radiology.

The students were given a self-administered questionnaire with multiple-choice questions about Oral Diagnosis and Radiology. The questions were selected from a bank of questions from this faculty's prior exams. Each question consists of one correct answer and three incorrect answers. To avoid confusion caused by the incorrect options, the survey was reviewed once again and a consensus was reached among the authors. The questions were asked in Turkish, which is the native language of Turkey, and are translated into English in the Appendices section.

The questions consist of a total of 15 questions, including ten knowledge-based questions and five scenario-based questions. Less reasoning was required to respond to knowledge-based questions because the student just needed to remember a theoretical concept. However, as scenario-based questions involved decision-making

and analysis of the clinical situation, answering them required a greater level of cognitive ability.

The student must select from four options the one that is accurate for each question. Additionally, each student should state how confident they are in the response they have chosen (very sure, sure, unsure, and very unsure). The students filled out the questionnaire without any negative factors such as exam stress or anxiety.

## Statistical analysis

The SPSS (Statistical Package for the Social Sciences) 26.0 (SPSS IBM, Turkey) software was used for all statistical analyzes. Shapiro Wilks and Kolmogorov-Smirnov tests were used to examine the parameters' conformity to the normal distribution. The Mann-Whitney U test was used to compare the two groups. Statistics were considered significant for  $P$  values  $<0.05$ .

For statistical analysis, there were two levels of confidence: sure (very sure or sure) and unsure (unsure and very unsure). According to the combinations shown in Table 1, the student replies were categorized as accurate, inaccurate, misconception, and insecure by the relationship of confidence level with accuracy. According to the combinations shown in Table 1, the student replies were categorized as accurate, inaccurate, misconception, and insecure by the relationship of confidence level with accuracy. The correctness (correct or incorrect), confidence (sure or unsure), and misconceptions (found when a student was confident in submitting an inaccurate response) of the students' responses were evaluated. When a student was sure (sure or very sure) that they had given a wrong answer, misconceptions were noted.

## RESULTS

From 106 students, a total of 1590 valid responses were obtained (56.6% female, 43.4% male) and 50.9% of the

**Table 1: Classification of student's responses based on the relation between correctness and confidence level**

Students' responses	Correctness	Confidence level
Misconception	Incorrect	Sure
Accurate	Correct	Sure
Inaccurate	Incorrect	Unsure
Insecure	Correct	Unsure

**Table 2: Distribution of the students' responses for each group of questions**

Group of question	Response classification			
	Misconception <i>n</i> (%)	Accurate <i>n</i> (%)	Inaccurate <i>n</i> (%)	Insecure <i>n</i> (%)
Scenario	104 (19.6)	237 (44.7)	130 (24.5)	59 (11.1)
Knowledge	195 (18.4)	516 (48.7)	180 (17.0)	169 (15.9)

**Table 3: The number of misconceptions, accurate, inaccurate, and insecure per question**

Question	Subject area	Group of question	Misconception <i>n</i> (%)	Accurate <i>n</i> (%)	Inaccurate <i>n</i> (%)	Insecure <i>n</i> (%)
Q 1	Oral D.	Scenario	29 (27.4)	40 (37.7)	21 (19.8)	16 (15.1)
Q 2	Oral R.	Scenario	14 (13.2)	52 (49.1)	32 (30.2)	8 (7.5)
Q 3	Oral D.	Scenario	25 (23.6)	31 (29.2)	35 (33.0)	15 (14.2)
Q 4	Oral R.	Scenario	18 (17.0)	54 (50.9)	23 (21.7)	11 (10.4)
Q 5	Oral D.	Scenario	18 (17.0)	60 (56.6)	19 (17.9)	9 (8.5)
Q 6	Oral D.	Knowledge	14 (13.2)	35 (33.0)	28 (26.4)	29 (27.4)
Q 7	Oral D.	Knowledge	4 (3.8)	85 (80.2)	9 (8.5)	8 (7.5)
Q 8	Oral R.	Knowledge	9 (8.5)	64 (60.4)	8 (7.5)	25 (23.6)
Q 9	Oral D.	Knowledge	49 (46.2)	39 (36.8)	10 (9.4)	8 (7.5)
Q 10	Oral R.	Knowledge	17 (16.0)	47 (44.3)	23 (21.7)	19 (17.9)
Q 11	Oral R.	Knowledge	28 (26.4)	9 (8.5)	48 (45.3)	21 (19.8)
Q 12	Oral R.	Knowledge	41 (38.7)	29 (27.4)	22 (20.8)	14 (13.2)
Q 13	Oral R.	Knowledge	23 (21.7)	62 (58.5)	9 (8.5)	12 (11.3)
Q 14	Oral R.	Knowledge	7 (6.6)	66 (62.3)	17 (16.0)	16 (15.1)
Q 15	Oral R.	Knowledge	3 (2.8)	80 (75.5)	6 (5.7)	17 (16.0)

Oral D Oral Diagnosis, Oral R Oral Radiology

**Table 4: Distribution of the fourth-grade students' responses by question group**

Group of question	Response classification			
	Misconception <i>n</i> (%)	Accurate <i>n</i> (%)	Inaccurate <i>n</i> (%)	Insecure <i>n</i> (%)
Scenario	59 (21.9)	91 (33.7)	82 (30.4)	38 (14.1)
Knowledge	87 (16.1)	244 (45.2)	112 (20.7)	97 (18.0)

**Table 5: Distribution of the fifth-grade students' responses by question group**

Group of question	Response classification			
	Misconception <i>n</i> (%)	Accurate <i>n</i> (%)	Inaccurate <i>n</i> (%)	Insecure <i>n</i> (%)
Scenario	45 (17.3)	146 (56.2)	48 (18.5)	21 (8.1)
Knowledge	108 (20.8)	272 (52.3)	68 (13.1)	72 (13.8)

participants are fourth-grade students, 49.1% of them are fifth-grade students.

Regarding the group of questions, for scenario-based questions, 237 (44.7%) were accurate, 130 (24.5%) were inaccurate, 104 (19.6%) were misconceptions, and 59 (1.1%) were insecure responses. For knowledge-based questions, 516 (48.7%) were accurate, 195 (18.4%) were misconceptions, 180 (17.0%) were inaccurate, and 169 (15.9%) were insecure [Table 2]. Scenario-based questions had more misconceptions (19.6%) than knowledge-based questions (18.4%).

Regardless of group, depending on the question, misconceptions ranged in number from 3 (2.8%) to 49 (46.2%). Two questions about Oral Diagnosis and Radiology had the most misconceptions. The

first was concerning denture stomatitis (question 9) (46.2%), followed by a question about radiographic contrast (question 12) (38.7%) [Table 3]. Moreover, statistically, the fourth-grade students answered correctly these questions higher rate than the fifth-grade students ( $P < 0.05$ ).

In terms of grade level, the rate of misconceptions (21.9%) in scenario-based questions was higher than in knowledge-based questions (16.1%) for fourth-grade students. In addition, the rate of accuracy (45.2%) in knowledge-based questions was higher than in scenario-based questions (33.7%) [Table 4]. However, the rate of misconceptions (20.8%) in knowledge-based questions was higher than in scenario-based questions (17.3%) for fifth-grade students. Also, the rate of accuracy (56.2%) in scenario-based questions was higher than in knowledge-based questions (52.3%) [Table 5]. No significant difference was found in terms of gender ( $P > 0.05$ ).

## DISCUSSION

The occurrence of misconceptions that are knowledge-related problems may impair clinical practice in the field of dentistry. This study identified and analyzed the misconceptions about Oral Diagnosis and Radiology in fourth and fifth-grade students. Students were observed to be confident about their misconceptions. This psychological bias, known as the Dunning-Kruger effect, causes people to falsely overestimate their level of expertise in a certain field.<sup>[16]</sup>

To identify misconceptions, in the literature there is no consensus about ideal assessment questions. However,

multiple-choice tests are reliable and effective for assessing learning in medical sciences.<sup>[17,18]</sup> In this study, two types of multiple-choice questions were used as scenario and knowledge-based questions to identify misconceptions, similar to the Grazziotin-Soares *et al.*, methodology.<sup>[19]</sup> In our study, scenario-based questions showed higher levels of misconceptions (19.6%). Similar to this, a study by Bezerra *et al.*,<sup>[15]</sup> found that compared to knowledge-based questions (23.7%), scenario-based questions had a higher incidence of misconceptions (25.7%). To evaluate and assess scenarios for scenario-based queries, knowledge integration is necessary. Therefore answering these questions requires more cognitive work. This conclusion suggests that such questions are better suited for evaluating deep learning. The student's response demonstrates how the case will be handled by creating scenario-based questions that accurately represent actual circumstances. Therefore it is crucial to keep in mind that a choice made based on misconceptions could have negative effects on the patient.<sup>[8]</sup>

Additionally, it was feasible to identify in this study which of the examined Oral Diagnosis and Radiology themes were more likely to lead to student misconceptions. The majority of misconception was observed in a question regarding denture stomatitis in Oral Diagnosis and Radiology. In this question, we asked about the difference in clinical appearance between denture stomatitis and allergy. In the case of denture stomatitis, erythema is within the denture margins. Most students misconceived the clinical appearance. Since the management of the two conditions is different, the clinical distinction is important for the appropriate treatment approach. For this question, misconceptions may not harm the patient, but the clinical situation is not improved by the treatment approach. The second-highest percentage of misconceptions concerned radiographic contrast. This knowledge-based question is not directly related to the patient in professional practice.

According to a study by Bezerra *et al.*,<sup>[15]</sup> the query about preventing jaw osteoradionecrosis had the most common misconceptions, followed by inquiries about epidemiology, risk factors, and clinical considerations for oral squamous cell carcinoma.

In the presented study, the difference in misconceptions between fourth and fifth-grade students was also evaluated. Misconceptions in scenario-based questions were higher than in knowledge-based questions for fourth-grade students. However, misconceptions in knowledge-based questions were higher than in scenario-based questions for fifth-grade students. This difference may be interpreted as fifth-grade students' ability to approach holistically is superior to fourth-grade

students with the increase in their knowledge and clinical experience.

It is not simple to overcome or prevent misconceptions. The practice of enhancing teaching and learning is essential to contribute to this process. Knowledge cannot be acquired by a single perspective on instructional methods. Therefore educators should refrain from only lecturing or just giving a text to read. Moreover, lecturers should gather students' preconceptions about the subject before explaining, since misconceptions can develop from pre-existing knowledge of the subject. The analysis of whether students' preconceptions are beneficial, detrimental to learning, or conflicting with knowledge is important.<sup>[20]</sup> The organization of the content is the most important factor affecting the student's learning.<sup>[21]</sup> Therefore it is valuable to use different teaching models such as case studies and interactive teaching. Dental education benefits from interactive learning because it promotes communication between students and teachers.<sup>[20,22-24]</sup>

Education should encourage students to challenge their prior knowledge. During assessments, evaluating the confidence level of students can encourage them to accept their knowledge gaps and support a more effective learning experience.<sup>[25,26]</sup> Additionally, giving students feedback on their competencies enables them to consider their level of confidence and actual knowledge.<sup>[15]</sup> According to a study by Greenwood *et al.*,<sup>[27]</sup> giving students feedback from the accuracy tests enables them to better understand their shortcomings and enhance their clinical experience.

In addition, students should be helped to realize their misconceptions and perform self-repair, and they should be informed about the learning process. By comprehending the learning process, students will be able to review the content they have learned.<sup>[20]</sup> Dentistry programs should be aimed at avoiding and correcting misconceptions, especially for preclinical courses.<sup>[15]</sup>

All dentistry disciplines depend on Oral Diagnosis and Radiology as the basis for the diagnosis of various diseases and disorders. As a result, professional expertise directly impacts patient care. Wrong diagnosis, wrong management strategy, or unnecessary exposure of patients to ionizing radiation can all be caused by misconceptions in Oral Diagnosis and Radiology. Lecturers should be trained to use these teaching techniques to recognize and overcome misconceptions. Additionally, teachers should teach students how to evaluate and improve their shortcomings.<sup>[15]</sup>

### Limitations

The small sample size is a shortcoming of this study; therefore the results will be more precise in a larger

sample size. Furthermore, different dental faculties have different teaching and assessment models, thus further studies involving other dental faculties are needed to evaluate misconceptions more comprehensively.

## CONCLUSION

This study helps to clarify common misconceptions about Oral Diagnosis and Radiology and could serve as a model for future research. The findings show that students are quite confident in misconceptions. The first step to eradicating misconceptions is to recognize them. This study helps students and educators by defining common misconceptions and setting up preventative measures to avoid and correct them.

## Ethical approval

The presented study was approved by the Clinical Research Ethical Committee of Altınbaş University (approval number: 2022/154).

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## REFERENCES

- Curtis DA, Lind SL, Dellinges M, Schroeder K. Identifying student misconceptions in biomedical course assessments in dental education. *J Dent Educ* 2012;76:1183-94.
- Pronin E. Perception and misperception of bias in human judgment. *Trends Cogn Sci* 2007;11:37-43.
- Chang C, Yeh T, Barufaldi JB. The positive and negative effects of science concepts tests on student conceptual understanding. *Int J Sci Educ* 2010;32:265-82.
- Wakabayshi T, Guskin K. The effect of an "unsure" option on early childhood professionals' pre- and post-training knowledge assessments. *Am J Eval*. 2010;31:486-98.
- American Dental Education Association. ADEA competencies for the new general dentist (as approved by the 2008 ADEA House of Delegates). *J Dent Educ*. 2012;76:891-4.
- American Dental Education Association. ADEA statement on professionalism in dental education *J Dent Educ* 2014;78:1071-6.
- Mamede S, Schmidt HG, Rikers R. Diagnostic errors and reflective practice in medicine. *J Eval Clin Pract* 2007;13:138-45.
- Curtis DA, Lind SL, Boscardin CK, Dellinges M. Does student confidence on multiple-choice question assessments provide useful information? *Med Educ* 2013;47:578-84.
- Tweed M, Thompson-Fawcett M, Schwartz P, Wilkinson TJ. Determining measures of insight and foresight from responses to multiple choice questions. *Med Teach* 2013;35:127-33.
- Berner ES, Graber ML. Overconfidence as a cause of diagnostic error in medicine. *Am J Med* 2008;121:S2-23.
- Kohnle A, McLean S, Aliotta M. Towards a conceptual diagnostic survey in nuclear physics. *Eur J Phys* 2011;32:55-62.
- Chi MTH, Roscoe RD, Slotta JD, Roy M, Chase CC. Misconceived causal explanations for emergent processes. *Cogn Sci* 2012;36:1-61.
- Bokkasam VK, Raviraj J, Gundlapalle P, Kolugundla V, Vardhan H, Thombarapu L. Awareness of oral medicine specialty among medical practitioners in and around Tirupati: A survey. *J Indian Acad Oral Med Radiol* 2015;27:59-62.
- Shahab S, Kavosi A, Nazarinia H, Mehrizadeh S, Mohammadpour M, Emami M. Compliance of Iranian dentists with safety standards of oral radiology. *Dentomaxillofac Radiol* 2011;41:159-64.
- Bezerra HKF, Passos KKM, Leonel ACLDS, Carvalho EJA, Nascimento EHL, Ramos-Perez FMM, *et al.* Identifying misconceptions about oral radiology and medicine among dental students. *J Dent Educ* 2022;86:144-53.
- Kruger J, Dunning D. Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol* 1999;77:1121-34.
- McCoubrie P. Improving the fairness of multiple-choice questions: A literature review. *Med Teach* 2004;26:709-12.
- Tarrant M, Ware J, Mohammed AM. An assessment of functioning and non-functioning distractors in multiple-choice questions: A descriptive analysis. *BMC Med Educ* 2009;9:40.
- Grazziotin-Soares R, Lind SL, Ardenghi DM, Curtis DA. Misconceptions amongst dental students: How can they be identified? *Eur J Dent Educ* 2018;22:e101-6.
- Lucariello J, Naff D. How do I get my students over their alternative conceptions (misconceptions) for learning. American Psychological Association. Available from: <https://www.apa.org/education-career/k12/misconceptions>. [Last accessed on 2022 Nov 08].
- Schönwetter DJ, Lavigne S, Mazurat R, Nazarko O. Students' perceptions of effective classroom and clinical teaching in dental and dental hygiene education. *J Dent Educ*. 2006;70:624-35.
- Magliocca KR, Diamante M, Salamen OJ, Slaughter DA, Pullen KT, Weiss AW, *et al.* Use of an interactive teaching modality in predoctoral oral and maxillofacial surgery. *J Oral Maxillofac Surg* 2009;67:362-8.
- Wenz HJ, Zupanic M, Klosa K, Schneider B, Karsten G. Using an audience response system to improve learning success in practical skills training courses in dental studies- a randomized, controlled cross-over study. *Eur J Dent Educ* 2014;18:147-53.
- Hobo K, Noritake K, Sunaga M, Miyoshi T, Cao R, Nitta H, *et al.* Effects of an interactive simulation material for clinical dentistry on knowledge acquisition and memory retention in dental residents. *J Med Dent Sci* 2017;64:43-52.
- Gardner-Medwin AR. Confidence-based marking-towards deeper learning and better exams. In: Bryan C, Clegg K editors. *Innovative Assessment in Higher Education*. London and New York: Routledge-Taylor & Group Francis; 2006. p. 141-9.
- McMahan CA, Pinckard RN, Jones AC, Hendricson WD. Fostering dental student self-assessment of knowledge by confidence scoring of multiple-choice examinations. *J Dent Educ* 2014;78:1643-54.
- Greenwood L, Townsend G, Joseph V, Wethrell J. Introducing Adelaide dental students to a problem-based learning curriculum. *Eur J Dent Educ* 1999;3:15-9.

## APPENDICES

### Questionnaire

*The correct alternatives are boldfaced*

- The patient, who had a cerebrovascular attack anamnesis eight months ago states that he used anticoagulant and antihypertensive drugs. As a result of the clinical and radiological examination of the patient, supragingival plaque removal and fixed prosthesis to the right posterior region of the maxilla are planned. Which of the following is not included in the patient's treatment planning?
  - Supragingival plaque removal and the fixed prosthesis can be performed without causing bleeding.
  - The patient's blood pressure should be kept under control, and stop using anticoagulants.
  - Local anesthesia without vasoconstrictor should be preferred.
  - Anticoagulant drugs should be discontinued before all dental treatments.

Confidence level

Very sure  Sure  Unsure  Very unsure
- A 67-year-old female patient with a total prosthesis applied to the Oral Diagnosis clinic complaining of unilateral mandibular pain. The patient has been using the prosthesis for more than ten years. She has been unable to use her prosthesis for a few weeks due to a wound under the prosthesis. The patient had advanced osteoporosis and had no recent history of intervention in this wound area. It is learned that she has been using drugs for osteoporosis for many years and does not have any other diseases. According to panoramic radiography, the relevant region of the alveolar bone is separated from the jawbone by a radiolucent border. Based on the clinical and radiological findings described above, which of the following should be considered primarily in the diagnosis of this patient?
  - Acute osteomyelitis
  - Osteoradionecrosis
  - Garre's osteomyelitis
  - Bisphosphonate osteonecrosis

Confidence level

Very sure  Sure  Unsure  Very unsure
- A 40-year-old male patient applied to our clinic with complaints of difficulty in swallowing, sore throat, fever, anorexia, and weakness. White-colored macular lesions with irregular borders were observed on the buccal mucosa, upper lip, soft and hard palate, and above both tonsils during examination. The patient said that despite the antibiotic and various oral mouthwash treatments, the lesions have not healed for seven weeks. Which of the following options is not among the procedures to reach the diagnosis of this patient?
  - Serological tests are requested from the patient.
  - Excisional biopsy is performed from the lesion on the lip.
  - Aspiration biopsy from the lymph node is examined.
  - Local corticosteroid ointment is applied and the treatment is followed.

Confidence level

Very sure  Sure  Unsure  Very unsure
- A 35-year-old male patient is applied to the Oral Diagnosis clinic with the complaint of mild swelling in the attached gingiva in the mandibular premolar region. No findings were found in the radiographic examination. Histopathological examination of the lesion of the soft tissue reveals cystic formation lined with thin non-keratinized epithelium. Which of the following is the most likely diagnosis for this patient?
  - Lateral periodontal cyst
  - Nasolabial cyst
  - Incisive duct cyst
  - Adult gingival cyst

Confidence level

Very sure  Sure  Unsure  Very unsure
- A postmenopausal patient reports having a metallic taste in her mouth and dry mouth for the past two years. She had the left mandibular second molar extracted three years ago and has been in severe pain ever since. The patient's clinical, radiological, and laboratory evaluations did not reveal any results supporting her complaint that the pain radiates to her cheek and lip. Which of the following is the most likely diagnosis for this patient?

- a. Sjogren's syndrome  
 b. Trigeminal neuralgia  
 c. Alveolitis  
 d. Burning mouth syndrome  
 Confidence level  
 Very sure  Sure  Unsure  Very unsure
6. Which of the following statements about oral lichen planus are false?  
 a. It is an immunological disorder that affects the skin and mucous membranes.  
 b. It is usually observed distal to the buccal mucosa and bilaterally.  
 c. The reticular form is usually symptomatic.  
 d. Its atrophic form is one of the causes of pemphigoid gingivitis (desquamative gingivitis).  
 e. Confidence level  
 Very sure  Sure  Unsure  Very unsure
7. Which method can be used for the preliminary diagnosis of vesiculobullous diseases such as bullae and vesicles?  
 a. Diascopy  
 b. Koebner's phenomenon  
 c. Air blister test  
 f. Palpation  
 g. Confidence level  
 Very sure  Sure  Unsure  Very unsure
8. Which of the following is incorrect for the cyst?  
 a. The periodontal space was not interrupted.  
 b. It is larger than 1 cm in diameter.  
 c. The radiolucent density is homogeneous.  
 d. A compact line is observed around it.  
 Confidence level  
 Very sure  Sure  Unsure  Very unsure
9. Which physical feature of denture stomatitis does not suggest the possibility of allergy?  
 a. There is a long period of angular cheilitis.  
 b. There is pain when using the prosthesis.  
 c. The erythema is within the margin of the prosthesis.  
 d. The erythema is outside the border of the prosthesis.  
 Confidence level  
 Very sure  Sure  Unsure  Very unsure
10. Which of the following effects define radiation exposure to the embryo during the organogenesis period?  
 a. Genetic effect  
 b. Teratogenic effect  
 c. Somatic effect  
 d. Radiomimetic effect  
 Confidence level  
 Very sure  Sure  Unsure  Very unsure
11. Which of the following sentences is incorrect?  
 a. Developing tissues are more sensitive to radiation than mature tissues.  
 b. Ionization; Molecular change is the formation of new chemical bonds.  
 c. Whether a cell is in the mitotic stage or not affects the biological effects of radiation.  
 d. Radiation has the direct effect of breaking up the water in the cytoplasm and forming free radicals.  
 Confidence level  
 Very sure  Sure  Unsure  Very unsure

12. "It is the difference between the structure's density and the density of the surrounding structures on a radiograph."

This situation is defined by which of the following?

- a. Density
- b. Contrast
- c. Blurring
- d. Radiographic detail

Confidence level

Very sure  Sure  Unsure  Very unsure

13. Which of the following is not an anatomical area seen on radiographs of the maxilla?

- a. Lateral fossa
- b. Pterygoid process
- c. Genial tubercle
- d. Incisive foramen
- e. Confidence level

Very sure  Sure  Unsure  Very unsure

14. Why does the palatoglossal air space occur on a panoramic radiography?

- a. The patient does not position the tongue on the palate during the exposure.
- b. The patient bites the bite stick improperly.
- c. Patient moves his/her head.
- d. The patient's head is positioned backward.

Confidence level

Very sure  Sure  Unsure  Very unsure

15. Which of the following is not true for radiation protection?

- a. The patient should be protected with a 0.5 mm lead apron.
- b. The tube should be held by hand during exposure.
- c. Dosimeter should be used.
- d. The exposure time should not be longer than necessary.
- e. Confidence level

Very sure  Sure  Unsure  Very unsure