Assessment of the Knowledge Levels of 3rd- and 5th-Year Students of the Faculty of Dentistry at Mersin University Regarding Pulp and Periapical Diseases

Dear Participant,

This survey has been designed to evaluate the knowledge levels of 3rd- and 5th-year students of the Faculty of Dentistry at Mersin University regarding pulp and periapical diseases. The data obtained from this research will contribute to identifying the current situation and developing recommendations for the improvement of educational programs.

The study has been approved by the *Mersin University Clinical Research Ethics Committee* (Protocol No: 2025/613). It is conducted solely for scientific purposes, and the data collected will be used exclusively for statistical analyses and will not, under any circumstances, be shared with third parties.

The completion of the survey will take approximately **15–20 minutes**. Participation is entirely voluntary, and you may withdraw from the survey at any time. Your contribution is of great importance for the reliability and scientific value of our research. We sincerely thank you for your interest and participation.

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* Indicates required question

1. Do you agree to participate in this study on a voluntary basis? *

   Mark only one oval.

   - ◯ Yes, I agree.
   - ◯ No, I do not agree.

2. What is your current year of study? *

Mark only one oval.

- 3rd year
- 5rd year

Pulpa ve Periapical Diseases Questions

This section contains a total of 15 questions regarding pulp and periapical diseases. Each question has only one correct answer. Please select the option that you think is the most accurate.

3. **Q1.** Which of the following statements regarding chronic ulcerative pulpitis is **incorrect**? *

Mark only one oval.

- A) On the exposed pulp surface due to caries, ulcerative appearance and chronic inflammation may be observed.
- B) Although there is limited infection in the pulp in this condition, periapical tissues are generally normal.
- C) Severe, spontaneous, and diffuse pain is typical.
- D) Root canal treatment is generally preferred in management.
- E) Depending on the extent of chronic inflammation, pulp involvement may be partial or total.

4. **Q2.** A 32-year-old male patient presents for routine check-up. Clinical and radiographic examination reveal no caries, restorations, or pathological pockets. The vital tooth #41 and the root canal treated tooth #42 (treated 2 years ago) share a periapical radiolucency. The patient is scheduled for follow-up. After 1 year, tooth #41 remains vital and asymptomatic with apical radiopacity, but tooth #42 shows a sinus tract related to its apex. Which is the most appropriate treatment? *

Mark only one oval.

- A) Root canal treatment for #41 and retreatment for #42
- B) Root canal treatment for #41, monitor #42
- C) Monitor #41, retreatment for #42
- D) Initiate antibiotic therapy, monitor #41 and #42
- E) Extraction of both #41 and #42

5. **Q3.** Which of the following statements regarding chronic apical periodontitis is **incorrect**? *

Mark only one oval.

- A) Chronic apical periodontitis is a short-term, severe host response to various causes.
- B) Systemic diseases such as diabetes mellitus (DM) and human immunodeficiency virus (HIV) may play a role in its etiology.
- C) The tooth is usually not tender to pressure, but percussion may be perceived by the patient as a “different sensation.”
- D) Loss of lamina dura may be observed.
- E) Bone destruction in the apical region may be present.

6. **Q4.** Which of the following statements regarding acute apical periodontitis is **incorrect**?

Mark only one oval.

- A) Percussion is positive, and the tooth may also be tender to palpation.
- B) The tooth may be vital or non-vital.
- C) Pulpal anesthesia is easily achieved in such teeth.
- D) The patient may feel as though the tooth is elongated.
- E) Vasodilatation and increased vascular permeability leading to edema occur in acute apical periodontitis.

7. **Q5.** Which of the following statements regarding condensing osteitis is **incorrect**? *

Mark only one oval.

- A) Condensing osteitis is a diffuse radiolucent lesion resulting from localized bone reaction secondary to low-grade inflammatory stimulus.
- B) It is also known as chronic focal sclerosing osteomyelitis or sclerosing osteitis.
- C) It is usually observed at the apex of teeth with long-standing pulpal pathology.
- D) The tooth may be asymptomatic or sensitive to stimulus.
- E) Vitality testing may yield positive or negative responses.

8. **Q6.** Which of the following statements regarding Phoenix abscess is **incorrect**? *

Mark only one oval.

- A) It is also called acute exacerbation of asymptomatic apical periodontitis.
- B) It frequently occurs after root canal treatment of an asymptomatic tooth with a chronic lesion.
- C) Radiographs reveal a well-defined periradicular lesion.
- D) The priority in treatment is always extraoral drainage.
- E) The mucosa over the radicular area appears erythematous and swollen, and is tender on palpation.

9. **Q7.** Which of the following statements regarding asymptomatic apical abscess is **incorrect**? *

Mark only one oval.

- A) It develops gradually, causing little or no discomfort.
- B) The sinus tract may be intraoral or extraoral.
- C) It may also result from the chronicization of an acute apical abscess via drainage through the root canal, periodontal ligament space, or an intra/extraoral fistula.
- D) Radiographic examination always provides a definitive diagnosis.
- E) If the fistula drainage is blocked, it may become symptomatic with pain and swelling, converting to an acute condition.

10. **Q8.** Which of the following findings is **not** seen in reversible pulpitis? *

Mark only one oval.

- A) Early response to vitality testing
- B) Intact lamina dura
- C) Provoked pain
- D) Spontaneous pain
- E) Sweet sensitivity

11. **Q9.** Which of the following requires differential diagnosis with dentin hypersensitivity due to gingival recession? *

Mark only one oval.

- A) Hyperemia
- B) Acute apical periodontitis
- C) Acute apical abscess
- D) Acute pulpitis
- E) Chronic apical periodontitis

12. **Q10.** In a patient with severe spontaneous pain in a vital tooth, without any radiographic lesion, swelling, or percussion sensitivity, which is the most likely diagnosis and appropriate treatment? *

Mark only one oval.

- A) Hyperemia – Pulp capping
- B) Acute pulpitis – Root canal treatment
- C) Chronic apical abscess – Pulp capping
- D) Acute apical abscess – Pulp capping
- E) Periapical cemento-osseous dysplasia – Root canal treatment

13. **Q11.** Which of the following statements regarding pulp calcifications is **incorrect**? *

Mark only one oval.

- A) Calcification causes a yellowish discoloration of the crown.
- B) Calcifications may make canal localization difficult.
- C) Pulp stones are asymptomatic.
- D) Pulp stones are formed by deposition of carbonate hydroxyapatite.
- E) Calcifications are only seen in individuals over 40 years old.

14. **Q12.** I. Performed by osteoclastic activity and negative response to vitality testing *
II. Intact lamina dura
III. Positive response to vitality testing
IV. Radiographic appearance of the root canal passing through the defect
Which of the above are correct for the clinical and radiographic examination of internal inflammatory root resorption?

Mark only one oval.

- A) I and II
- B) I and IV
- C) II and III
- D) II and IV
- E) III and IV

15. **Q13.** I. Internal replacement resorption *
II. Internal inflammatory resorption
III. External inflammatory resorption
Which of the above types of root resorption present both radiopaque and radiolucent appearances radiographically?

Mark only one oval.

- A) I only
- B) I and II
- C) I, II, and III
- D) III only
- E) II only

16. **Q14.** A 32-year-old male patient presents with severe toothache, sensation of tooth elongation, and discomfort during chewing. Clinical examination reveals: deep caries in the left mandibular first molar, positive percussion, mobility, and tenderness to palpation. The vestibular mucosa shows redness, swelling, and fluctuation. Submandibular lymph nodes are enlarged and tender. The patient reports fever and malaise. Radiographic finding: periapical radiolucency and widening of the periodontal ligament space in tooth #36. What is the most likely diagnosis? *

Mark only one oval.

- A) Chronic apical periodontitis
- B) Acute apical abscess
- C) Pericoronitis
- D) Dentin hypersensitivity
- E) Reversible pulpitis

17. **Q15.** A 37-year-old female patient presents with mild pain and occasional gingival swelling. The symptoms have been intermittent for several months. Clinical examination reveals: deep caries in the right maxillary first molar (#16), positive percussion sensitivity, slight mobility, and a vestibular sinus tract opening with mild swelling. No fluctuation, fever, or malaise are present. Radiographic finding: a distinct periapical radiolucency and cortical bone erosion associated with tooth #16. What is the most likely diagnosis? *

Mark only one oval.

- A) Acute apical abscess
- B) Chronic apical abscess
- C) Granuloma
- D) Condensing osteitis
- E) Reversible pulpitis