

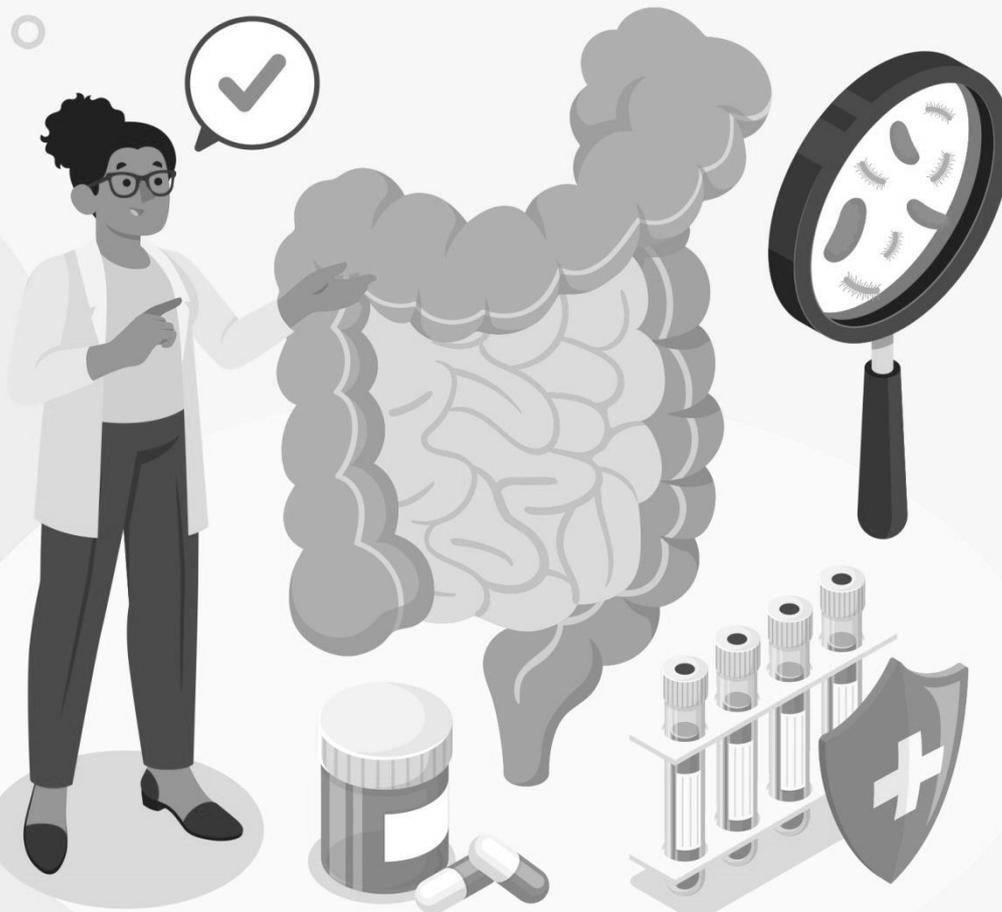
PHYSIO

GASTROINTESTINAL

2ND YEAR

MCQ L2

Dr/M.M



Cases

Case 1: Sialadenitis

- **65-year-old man presented to the outpatient clinic complaining of fever, painful swelling of cheek. He was diagnosed as sialadenitis (inflammation of salivary glands). The physician prescribed him antibiotics and steroids.**
- **Questions:**
 1. **What are the main types of salivary glands ?**
 2. **Enumerate Functions of saliva include:**
 3. **Enumerate Characters of saliva formed under resting conditions ?**

Case 2: Dysphagia

- **52-year-old woman presented to an outpatient clinic suffering from difficulty in swallowing, choking, coughing, frequent pneumonia, and weight loss. She was diagnosed as dysphagia**
- **Questions:**
 1. **Define swallowing?**
 2. **Describe the mechanism of pharyngeal phase of deglutition?**
 3. **What is the primary esophageal peristalsis?**
 4. **What is the secondary esophageal peristalsis?**
 5. **Factors that decrease lower esophageal sphincter tone include**
..... while the
GIT hormone increases its tone.
 6. **Food is prevented from entering the trachea during deglutition by:**
 - (a)
 - (b)
 - (c)

Written GIT 2,3

- 1) Def and significance of deglutition ?
- 2) Mention stages of salivary secretion
- 3) Enumerate functions of saliva **58,59 exam**
- 4) Mention buccal phase of salivary secretion
- 5) Def deglutition
- 6) Mention protective reflexes during pharyngeal phase of swallowing
- 7) What are factors affecting the tone of LES?
- 8) Def 1ry peristalsis ?

MCQ Formative and Most Important Q

<p>1. Which one of the following is true regarding the swallowing process?</p> <ul style="list-style-type: none">a. in the buccal phase the tongue moves downwardsb. it can easily occur while the mouth is openC. all phases are involuntaryd. it is controlled by a center in the medulla oblongatae. its pharyngeal phase is voluntary	D
<p>2. The salivary secretion:</p> <ul style="list-style-type: none">a) Has the largest volume relative to other O digestive juices.b) is hyperosmotic relative to the plasmac) Helps in digestion of lipids.d) Is increased by gastrin.e) Is only produced by nervous mechanism	E

<p>3. The LES tone is increased by:</p> <ul style="list-style-type: none"> a) Coffee and tea b) CCK hormone c) Hiatus hernia d) High level of Gastrin e) Prostaglandin 	D
<p>4. Salivary secretion is characterized by:</p> <ul style="list-style-type: none"> a) Its alkalinity dissolves Ca^+ from teeth b) It is inhibited by gastrin c) Its secretion is under nervous control d) It is stimulated only by parasympathetic e) Parotid secretion constitutes 70% 	C
<p>5. Pharyngeal phase of swallowing is characterized by:</p> <ul style="list-style-type: none"> a) Contraction of UES. b) Deglutition apnea. c) It is voluntary d) The tongue is pushed backward. e) Vocal cords are separated 	B
<p>6. Which of the following can decrease tone of lower esophageal sphincter?</p> <ul style="list-style-type: none"> a) Gastrin hormone. b) Intra-thoracic position of the sphincter. c) Low fat diet. d) Insulin. e) CCK. 	B

<p>7. Under basal condition, which ion has lower concentration in saliva, as compared with plasma?</p> <p>a) Calcium. b) Chloride. c) Iron d) Potassium. e) Sodium.</p>	E
<p>8. Pharyngeal phase of swallowing is characterized by:</p> <p>a) Contraction of UES. b) Deglutition apnea. c) It is voluntary d) The tongue is pushed backward. e) Vocal cords are separated</p>	D
<p>9. The pharyngeal phase of swallowing is accompanied by which of the following?</p> <p>a) Contraction of the lower esophageal sphincter. b) Contraction of the upper esophageal sphincter. c) Inhibition of respiration. d) Opening of the mouth. e) Vocal cords are separated.</p>	C
<p>10. Which of the following can decrease the lower Esophageal sphincter tone?</p> <p>a) Cholecystokinin (CCK) b) Excessive drinking of tea and coffee. c) High level of gastrin. d) High protein diet. e) Low level of secretin</p>	B

<p>11. The salivary secretion:</p> <ul style="list-style-type: none"> a) Helps in digestion of lipids b) Is increased by gastrin. c) Is hyperosmotic relative to the plasma. d) Is only regulated by nervous mechanism. e) Has the largest volume relative to other digestive juices. 	D
<p>12. The pharyngeal phase of swallowing is accompanied by which of the following?</p> <ul style="list-style-type: none"> a) Contraction of the lower esophageal sphincter. b) Contraction of the upper esophageal sphincter. c) Inhibition of respiration. d) Opening of the mouth. e) Vocal cords are separated. 	C
<p>13. Compared to plasma, saliva has the highest relative concentration of which of the following ions under basal conditions?</p> <ul style="list-style-type: none"> a- bicarbonate. b- chloride. c- potassium. d- sodium. 	C
<p>14. Which of the following ions has the highest concentration in saliva under basal conditions?</p> <ul style="list-style-type: none"> a- bicarbonate. b- chloride. c- potassium. d- sodium. 	A

<p>15. The pharyngeal phase of Swallowing:</p> <p>(A) Can be voluntarily inhibited.</p> <p>(B) Involves closure of larynx by the vocal cord.</p> <p>(C) Is associated with lowering of the soft palate.</p> <p>(D) Is accompanied by deep inspiration.</p> <p>(E) Is initiated by conditioned reflex.</p>	B
<p>16. The act of Swallowing is associated with:</p> <p>(A) Concurrent inhibition of respiration.</p> <p>(B) Opening of the glottis.</p> <p>(C) Movement of food into the nasopharynx.</p> <p>(D) Upper esophageal sphincter constriction when food placed in contact with the anterior pillars of the pharynx.</p> <p>(E) A and B are correct.</p>	A
<p>17. During which stage of Swallowing is respiration inhibited?</p> <p>(A) Voluntary stage.</p> <p>(B) Pharyngeal stage.</p> <p>(C) Esophageal stage.</p> <p>(D) Postprandial stage.</p>	B
<p>18. The salivary secretion:</p> <p>a) Contains only mucus component.</p> <p>b) Comes mostly from the sublingual gland</p> <p>c) Has a constant composition</p> <p>d) is increased mainly by parasympathetic stimulation</p> <p>e) is entirely under hormonal control.</p>	D

<p>19. The salivary secretion:</p> <ul style="list-style-type: none"> a) Has the largest volume relative to other digestive juices. b) Is hyperosmotic relative to the plasma c) Helps in digestion of lipids. d) Is increased by gastrin. e) Is only produced by nervous mechanism 	E
<p>20. Which of the following is absent in saliva:</p> <ul style="list-style-type: none"> a) Lysozymes. b) amylase. c) Trypsin. d) Lactoferrin. e) Thiocyanate ions. 	C
<p>21. A patient with trigeminal lesion would have the greatest difficulty with which of the following?</p> <ul style="list-style-type: none"> (A) Swallowing. (B) Chewing. (C) Receptive relaxation of the upper esophageal sphincter (D) Secondary peristalsis in the esophagus. 	B
<p>22. Mastication:</p> <ul style="list-style-type: none"> (A) Is entirely a voluntary act. (B) Includes both voluntary and reflex components. (C) Is performed by muscles supplied by 7th (facial nerve). (D) It is normally initiated by conditioned reflexes. (E) is important for digestion of carbohydrates only. 	B

<p>23. Man is unable to digest dietary:</p> <p>(A) glycogen. (B) Dextrin. (C) Saccharose. (D) Cellulose. (E) Glucose.</p>	D
<p>24. During the chewing of a bolus of food, but before Swallowing, salivary secretion, gastric secretion and pancreatic secretion are stimulated by which the following?</p> <p>(A) Acetycholine, gastrin, histamine. (B) Acetycholine, CCK, nitric oxide. (C) Nitric oxide, VIP, histamine. (D) VIP, gastrin, Somatostatin. (E) Nitric oxide, CCK, serotonin.</p>	A
<p>25. About salivary glands, which of the following statement is true?</p> <p>(A) Their secretion is mainly under hormonal control. (B) The sympathetic system is the only natural pathway for stimulation of their secretion. (C) Both sympathetic and parasympathetic nerves stimulate its secretion. (D) Bradykinin decreases their blood flow rate. (E) Their secretion increase in conditions of dehydration.</p>	C
<p>26. Which of the following statements about salivary secretion is untrue?</p> <p>(A) Saliva has constant composition regardless the rate of secretion. (B) The submandibular glands secrets about 70%of the total secretion. (C) The buccal phase of salivary secretion is due to unconditioned reflex.</p>	A

<p>27. Salivation can become a conditioned reflex. This suggests that:</p> <p>(A) Pleasant taste sensation are not related to the reflex.</p> <p>(B) Only salivatory nuclei in the brainstem need to be excited by taste sensation without participation of suprasegmental influences.</p> <p>(C) The cerebral cortex partially controls salivation.</p> <p>(D) Salivation could be completely interrupted in a decorticate animal whose tongue is mechanically stimulated.</p>	C
<p>28. Saliva is characterized by all the following except:</p> <p>(A) Its concentration of K^+ is the same as that in plasma.</p> <p>(B) Its Na^+ & Cl^- concentration are lower than those in plasma.</p> <p>(C) Its osmotic pressure and PH are lower than their corresponding values in plasma.</p> <p>(D) It exerts antibacterial action.</p>	A
<p>29. Deglutition (Swallowing):</p> <p>(A) Is a complicated act requiring the precise coordination of many muscles group.</p> <p>(B) Is an automatic function of smooth muscle.</p> <p>(C) Is associated with a lowering of hard palate to prevent reflux of food into the nasopharynx.</p> <p>(D) Does not require relaxation of cricopharyngeal muscle.</p> <p>(E) A and c are correct.</p>	A
<p>30. During a normal Swallowing sequences, the smooth muscle which surrounds the gastro esophageal junction:</p> <p>(A) Remains tonically constricted until the bolus arrives at this junction.</p> <p>(B) Relaxes even before the oncoming peristaltic wave has arrived.</p> <p>(C) Constricts further on the passing bolus and allows a gradual esophageal emptying.</p> <p>(D) Is never constrict at all, and has no participation of any kind in the Swallowing process.</p>	B

<p>31. During swallowing, all the following occur except:</p> <p>(A) The palatopharyngeal folds approximate to each other.</p> <p>(B) The larynx moves upwards and is closed by the epiglottis.</p> <p>(C) The pharyngeo- esophageal sphincter is relaxed.</p> <p>(D) The vocal cords relax and separate from each other.</p> <p>(E) The pharyngeal muscles contract and the soft palate is elevated.</p>	D
<p>32. Select a single incorrect answer about Swallowing:</p> <p>(A) Reflex apnea occurs during the pharyngeal phase.</p> <p>(B) The buccal phase of swallowing is voluntary.</p> <p>(C) Food is prevented from entering the nose during swallowing by elevation of epiglottis.</p>	C
<p>33. All the following statements about esophagus are true except:</p> <p>(A) UES is a true sphincter.</p> <p>(B) Gastrin increases tone of LES.</p> <p>(C) LES contracts during Swallowing.</p>	C
<p>34. Which of the following structures undergoes receptive relaxation when a bolus of food is swallowed?</p> <p>a) Oral stomach.</p> <p>b) Palatopharyngeal folds.</p> <p>c) Pharynx.</p> <p>d) Thoracic esophagus.</p> <p>e) UES.</p>	A
<p>35. The event not likely to occur during pharyngeal phase of swallowing is:</p> <p>a) Apnea.</p> <p>b) Closure of posterior nares.</p> <p>c) Narrowing of palatopharyngeal folds.</p> <p>d) Opening of glottis</p> <p>e) Upward movement of larynx.</p>	D

<p>36. Which prevents food from entering nasal cavity during swallowing:</p> <ul style="list-style-type: none"> a) Elevation of soft palate. b) Contraction of pharyngeal muscles. c) Approximation of vocal cords. d) Elevation of epiglottis. 	<p>A</p>
<p>37. Deglutition is accompanied by all of the following except:</p> <ul style="list-style-type: none"> a) Relaxation of the upper esophageal sphincter. b) Contraction of the pharyngeal wall muscles. c) Closure of the larynx by epiglottis. d) Pulling the soft palate downwards. 	<p>D</p>
<p>38. The process of swallowing (deglutition):</p> <ul style="list-style-type: none"> a) Consists of 5 phases all of which are involuntary. b) Can easily occur while the mouth is open. c) Is controlled by a center in the medulla and lower pons that initiates a peristaltic wave in the pharyngeal musculature. d) In the buccal phase the tongue moves downwards and the larynx is depressed. 	<p>C</p>
<p>39. The pharyngeal phase of swallowing is accompanied by:</p> <ul style="list-style-type: none"> a) Contraction of superior constrictor of pharynx. b) Contraction the upper esophageal sphincter. c) Contraction of the lower esophageal sphincter. d) Vocal cords are separated. e) Respiration is stimulated. 	<p>A</p>

40. Trophic salivary secretion is characterized by one of the following:

- a) *Is small in volume and rich in enzymes.*
- b) *Is produced by parasympathetic stimulation.*
- c) *Is little turbid saliva.*
- d) *Contains large amount of water and electrolyte.*
- e) *Is due to sympathetic after parasympathetic stimulation.*

A