

## DISCIPLINE PEDIATRIC SURGERY

Select only one correct answer:

**1. The most frequent congenital malformation of esophagus is**

- A. ☐ Esophageal duplication;
- B. ☐ Esophageal stenosis;
- C. ☐ Esophageal atresia;
- D. ☐ Esophageal fistula;
- E. ☐ Megaesophagus.

**2. The following affirmations concerning esophageal atresia are right, excepting:**

- A. ☐ Esophageal atresia is the most frequent and severe congenital malformation of the esophagus;
- B. ☐ Esophageal atresia is a fatal disease, because of impossibility to feed the newborn;
- C. ☐ There are communications between esophagus and trachea in some types of esophageal atresia;
- D. ☐ Drooling and excessive oral salivation are the dominant symptoms of esophageal atresia;
- E. ☐ Vomiting with milk is the dominant symptom of esophageal atresia.

**3. A newborn 5 hours after birth presents progressive expiratory dyspnea, polypnea, cyanosis and coughing. On inspection the left hemithorax is bulged, with horizontal ribs and widened intercostal spaces. On percussion of the affected side tympanic resonance is present and on auscultation the vesicular respiration is absent. The abdomen is without any findings. What is the suspected diagnosis?**

- A. ☐ Spontaneous pneumothorax;
- B. ☐ Congenital diaphragmatic hernia;
- C. ☐ Congenital bronchogenic cyst;
- D. ☐ Azygous pulmonary lobe;
- E. ☐ Congenital lobar emphysema.

**4. The hypertrophic pyloric stenosis is a:**

- A. ☐ High bowel obstruction at the level of papilla Vateri;
- B. ☐ Low bowel obstruction at the level of pylorus;
- C. ☐ High bowel obstruction at the level of pylorus due to hypertrophy of mucosa;
- D. ☐ High bowel obstruction at the level of pylorus due to muscle hypertrophy;
- E. ☐ Low bowel obstruction at the level of pylorus due to muscle hypertrophy.

**5. In hypertrophic pyloric stenosis the vomiting occurs:**

- A. ☐ At any age;
- B. ☐ Up to the age of 1 year;
- C. ☐ After the age of 6 month;
- D. ☐ After the age of 1 year;
- E. ☐ Around 14-21 days postnatally.

**6. The bilious vomiting from the birth is a dominant symptom in:**

- A. ☐ Congenital hypertrophic pyloric stenosis;
- B. ☐ Pyloric spasm;
- C. ☐ Duodenal stenosis;

- D. ☐ Duodenal atresia;
- E. ☐ Ileal atresia.

**7. The following affirmations about Ladd syndrome are true, excepting:**

- A. ☐ Ladd syndrome is a congenital extrinsic duodenal obstruction;
- B. ☐ In Ladd syndrome the ascendant colon is not fixed in the right gutter;
- C. ☐ In Ladd syndrome the ascendant colon remains hanged in place of colon transversum;
- D. ☐ In Ladd syndrome the parietocolic ligament (Ladd's bands) compresses the second part of the duodenum;
- E. ☐ In Ladd syndrome the parietocolic ligament (Ladd's bands) compresses the ileum.

**8. The meconal ileus is a consequence of:**

- A. ☐ Internal hernias;
- B. ☐ Bowel stenosis;
- C. ☐ Jejunoileal duplications;
- D. ☐ Colonic duplications;
- E. ☐ Cystic fibrosis.

**9. The following affirmations as far as congenital megacolon (Hirschsprung disease) is concerned are true excepting:**

- A. ☐ The positive diagnostic is established on the base of clinical signs, anorectal manometry, barium enema and rectal biopsy;
- B. ☐ The aganglioneosis (lack of Auerbach's and Meissner's plexus ganglia) plays the key role in the pathophysiology of Hirschsprung disease;
- C. ☐ Severe cases of Hirschsprung disease are self curing;
- D. ☐ At the anorectal manometry the rectoanal inhibitory reflex is absent;
- E. ☐ In mild cases of Hirschsprung disease the constipations occur after several months from the birth when the alimentary diversification is attempted.

**10. The commonest type of intussusception in an infant is:**

- A. ☐ Ileoileal;
- B. ☐ Colocolonic;
- C. ☐ Jejunojejunal;
- D. ☐ Appendicular;
- E. ☐ Ileoceocolonic.

**11. A child of 7 months is admitted after 13 hours from the sudden disease onset against the background of full wellbeing. At the admission he presented colicky abdominal pains, recurrent vomiting. The child is agitated and refuses the food. The agitation periods alternate with periods of quietness. The abdomen is of normal shape, soft, elastic and slightly painful. In the subepatic area an elongated, cylindrical, elastic mass, with smooth surface is palpated. The stools are absent from the onset. What is the suspected diagnosis?**

- A. ☐ Appendicular infiltrate;
- B. ☐ Intestinal volvulus;
- C. ☐ Bowel intussusception;
- D. ☐ Retroperitoneal tumor;
- E. ☐ Pancreatic cyst.

**12. The following affirmations as far as hemangiomas are concerned are true excepting:**

- A. ☐ Hemangiomas are vascular tumors which consist of abnormal vessels;
- B. ☐ Hemangiomas have a potential of dramatic progression in size in the first 6 months of life;
- C. ☐ In 70-75% of cases hemangiomas are self curing tumors and don't need any treatment;
- D. ☐ Hemangiomas complications include hemorrhage and infection;
- E. ☐ Hemangiomas are located only on the face.

**13. The commonest complication of acute appendicitis in children is:**

- A. ☐ Appendicular infiltrate;
- B. ☐ Intraperitoneal hemorrhage;
- C. ☐ Bowel obstruction;
- D. ☐ Liver abscess;
- E. ☐ Diffuse peritonitis.

**14. A new born after delivery has hypersalivation. The first feeding attempt (after 2-3 swallows) causes cyanosis and coughing. Dyspnea and polypnea occurs. What is the suspected diagnosis?**

- A. ☐ Esophageal fistula;
- B. ☐ Esophageal stenosis;
- C. ☐ Diaphragmatic hernia;
- D. ☐ Esophageal duplication;
- E. ☐ Esophageal atresia.

**15. The recurrent pneumonia is more often in the following congenital malformation:**

- A. ☐ Esophageal diverticulum;
- B. ☐ Esophageal achalasia;
- C. ☐ Traheo-esophageal fistula;
- D. ☐ Congenital diaphragmatic hernia;
- E. ☐ Hypertrophic pyloric stenosis.

**16. Which of the examinations below is of most value in the diagnosis of congenital lobar emphysema?**

- A. ☐ Plain chest X-ray, upright view;
- B. ☐ Bronchography;
- C. ☐ Bronchoscopy;
- D. ☐ Computed tomography;
- E. ☐ Scintigraphy.

**17. The main symptom of hypertrophic pyloric stenosis is:**

- A. ☐ Dyspnea;
- B. ☐ Projectile vomiting with food (milk or formula), the vomiting volume exceeds the last meal amount;
- C. ☐ Bilious vomiting;
- D. ☐ Abdominal distension;
- E. ☐ Digestive hemorrhage;

**18. A firm, painless on palpation, olive shaped tumor in the right hypochondrium, in the pancreato-duodenal area in a child of 5 weeks, who have projectile milky vomiting from the age of 3 weeks, is present in:**

- A. ☐ Pyloric duplication;
- B. ☐ Incomplete duodenal obstruction by a perforated web;

- C. ☐ Congenital hypertrophic pyloric stenosis;
- D. ☐ Annular pancreas;
- E. ☐ Bowel intussusception.

**19. The ultrasound sign characteristic for hypertrophic pyloric stenosis is:**

- A. ☐ “Target” sign;
- B. ☐ “Doughnut” sign;
- C. ☐ “Beak” sign;
- D. ☐ “Corkscrew” sign;
- E. ☐ “Antral nipple” sign.

**20. Bilious vomiting in a newborn is a capital symptom of:**

- A. ☐ Congenital hypertrophic pyloric stenosis
- B. ☐ Pyloric spasm
- C. ☐ Duodenal stenosis
- D. ☐ Duodenal atresia
- E. ☐ Hiatal hernia

**21. The key role in the pathophysiology of Hirschsprung disease plays the following:**

- A. ☐ Congenital or acquired rectal stenosis;
- B. ☐ Short bowel syndrome;
- C. ☐ Functional causes;
- D. ☐ Aganglionosis;
- E. ☐ Anorectal malformations.

**22. The following affirmations in a child with congenital megacolon are true:**

- A. ☐ Diagnosis is established on the base of clinical signs;
- B. ☐ Diagnosis is established on the base of rectal examination;
- C. ☐ Diagnosis is established on the base of ultrasound examination;
- D. ☐ Diagnosis is established on the base of clinical signs, clinical findings, anorectal manometry, barium enema and rectal biopsy;
- E. ☐ Diagnosis is established on the base of barium enema.

**23. The intermittent, crampy abdominal pain associated with recurrent vomiting, “currant jelly” stools and a palpable abdominal mass are the symptoms triad in:**

- A. ☐ Diverticulitis;
- B. ☐ Acute appendicitis;
- C. ☐ Gastroenteritis;
- D. ☐ Bowel intussusception;
- E. ☐ Necrotizing enterocolitis.

**24. The definitive diagnosis of the bowel intussusception in an older child is based on:**

- A. ☐ Physical examination;
- B. ☐ Physical examination, plain abdominal X-ray film, air enema, abdominal ultrasound;
- C. ☐ Only on the base of plain abdominal X-ray;
- D. ☐ Only on the base of air enema;
- E. ☐ Only on the base of abdominal ultrasound.

**25. The following affirmations concerning branchial cleft cysts are true, excepting:**

- A. ☐ Branchial cleft cysts are congenital epithelial cysts, which arise on the lateral part of the neck from a failure of obliteration of the second branchial cleft in embryonic development;
- B. ☐ Branchial cysts are smooth, nontender, fluctuant masses, which occur along the lower one third of the anteromedial border of the sternocleidomastoid muscle between the muscle and the overlying skin;
- C. ☐ When associated with a sinus tract, mucoid or purulent discharge onto the skin or into the pharynx may be present;
- D. ☐ The branchial cleft cyst is a congenital lesion formed by incomplete involution of the thyroglossal duct;
- E. ☐ Complications of surgical excision of branchial cleft cysts result from damage to nearby vascular or neural structures, which include carotid vessels and the facial, hypoglossal, vagus, and lingual nerves.

**26. Which of the examinations below is of most value in the diagnosis of esophageal atresia?**

- A. ☐ Thoraco-abdominal plain X-ray in the upright position;
- B. ☐ Thoraco-abdominal plain X-ray in the upright position with contrasting probe introduced in the esophagus;
- C. ☐ Thoraco-abdominal X-ray with contrast substance (Upper gastrointestinal series);
- D. ☐ Bronchoscopy;
- E. ☐ Scintigraphy.

**27. The cause of generalized cyanosis in neonate is:**

- A. ☐ Tracheo-esophageal fistula;
- B. ☐ Diaphragmatic hernia;
- C. ☐ Pectus carinatum;
- D. ☐ Pectus excavatum;
- E. ☐ Congenital bronchiectasis.

**28. Which of the examinations below is of most value in the diagnosis of congenital diaphragmatic hernia?**

- A. ☒ Plain toraco-abdominal film;
- B. ☐ Scintigraphy;
- C. ☐ Bronchoscopy;
- D. ☐ Barium enema;
- E. ☐ Computed tomography.

**29. In the hypertrophic pyloric stenosis the vomiting is:**

- A. ☐ Precocious, immediately after birth;
- B. ☐ Bilious;
- C. ☐ White projectile and explosive;
- D. ☐ Seldom;
- E. ☐ Without any consequences as far as body weight gain is concerned.

**30. The body weight of a child with hypertrophic pyloric stenosis:**

- A. ☐ Increases abruptly;
- B. ☐ Decreases dramatically;
- C. ☐ Stagnates;
- D. ☐ Normally increases;
- E. ☐ Stagnates and subsequently gradually decreases.

**31. The dominant symptom in the duodenal atresia is:**

- A. ☐ Milky projectile vomiting;
- B. ☐ Precocious, bilious, recurrent vomiting;
- C. ☐ Meconial vomiting;
- D. ☐ Meconial and then fecaloid vomiting;
- E. ☐ Distended abdomen.

**32. The dominant symptom of high bowel obstruction is:**

- A. ☐ Milky vomiting;
- B. ☐ Bilious vomiting;
- C. ☐ Milky vomiting with bloodstreaks;
- D. ☐ Failure to pass meconium;
- E. ☐ Advanced abdomen distension.

**33. The parasympathetic innervation of distal colon, rectus and anus originates from:**

- A. ☐ T1 - T2 - T3;
- B. ☐ L3 - L4 - L5;
- C. ☐ L4 - L5 - S1;
- D. ☐ S2 -S3 - S4;
- E. ☐ Stellate ganglion.

**34. Rectal examination of a child with severe congenital megacolon reveals:**

- A. ☐ There is meconium in the rectum;
- B. ☐ Anal stenosis;
- C. ☐ Rectal polyps;
- D. ☐ There is no meconium in the rectum;
- E. ☐ Anal sphincter is atonic.

**35. The “currant jelly” stools after 8-12 hours from the disease onset are present in:**

- A. ☐ Meckel’s diverticulum;
- B. ☐ Enterocolitis;
- C. ☐ Rectocolonic polyposis;
- D. ☐ Rectal fissure;
- E. ☐ Intestinal intussusception.

**36. The death of a child with neglected bowel intussusception is due to:**

- A. ☐ Peritonitis;
- B. ☐ Internal hemorrhage;
- C. ☐ Mesenteric thrombosis;
- D. ☐ Anaphylactic shock;
- E. ☐ Cerebral hemorrhage.

**37. The following affirmations regarding thyroglossal cyst are true, excepting:**

- A. ☐ A thyroglossal cyst is a fibrous cyst that forms from a persistent thyroglossal duct;
- B. ☐ It usually presents as a midline neck lump (in the region of the hyoid bone) that is usually painless, smooth and cystic;
- C. ☐ If infected pain can occur;
- D. ☐ The most common locations for a thyroglossal cyst are midline or slightly off midline, between the isthmus of the thyroid and the hyoid bone or just above the hyoid bone;

E. ☐ A thyroglossal cyst will not move upwards with protrusion of the tongue.

**38. The main symptom of esophageal atresia is:**

- A. ☐ Dysphagia;
- B. ☐ Hypersalivation;
- C. ☐ Bilious vomiting;
- D. ☐ High gastrointestinal hemorrhage;
- E. ☐ Abdominal distension.

**39. The main symptom of tracheo-esophageal fistula (H fistula) is:**

- A. ☐ Drooling and hypersalivation;
- B. ☐ Milk regurgitation after 1-2 sucks;
- C. ☐ Cyanosis from the birth;
- D. ☐ Noisy respiration, dyspnea from the birth;
- E. ☐ Recurrent coughing during feeding (the coughing interrupts sucking).

**40. The following affirmations as far as congenital lobar emphysema is concerned are wrong, excepting:**

- A. ☐ Congenital lobar emphysema is an asymptomatic disease;
- B. ☐ The dominant symptom of congenital lobar emphysema is sepsis;
- C. ☐ The dominant symptoms of congenital lobar emphysema are dyspnea, polypnea and progressive cyanosis;
- D. ☐ The dominant symptom of congenital lobar emphysema is coughing with mucopurulent expectorations;
- E. ☐ In children with congenital lobar emphysema chest X-ray reveals a round shaped, air-liquid shadow on the affected side.

**41. Which sign is the most important and informative in the onset of hypertrophic pyloric stenosis?**

- A. ☐ Colicky abdominal pain;
- B. ☐ Abundant stools;
- C. ☐ Fever;
- D. ☐ Food refusal;
- E. ☐ Projectile vomiting after feeding.

**42. Milky projectile, explosive vomiting at the age of 6 weeks is permanently present in a child with:**

- A. ☐ Cow's milk protein intolerance;
- B. ☐ Congenital hypertrophic pyloric stenosis;
- C. ☐ Duodenal stenosis;
- D. ☐ Ladd syndrome;
- E. ☐ Hiatal hernia.

**43. The main radiographic sign of hypertrophic pyloric stenosis is:**

- A. ☐ Elongated, filiform, centrally located pyloric canal ("string sign");
- B. ☐ Dilated pyloric canal;
- C. ☐ Eccentric pyloric canal;
- D. ☐ Significant gastric stasis;
- E. ☐ Strong gastric waves along greater and lesser curvatures of the stomach.

**44. The presence of 2 air-liquid levels in the upper abdomen (on the opposite sites of the spine) on the thoraco-abdominal plain X-ray film in the upright position is a sign of:**

- A. ☐ Esophageal atresia type C;
- B. ☐ Duodenal atresia;
- C. ☐ Duodenal stenosis;
- D. ☐ Colonic stenosis;
- E. ☐ Congenital hypertrophic pyloric stenosis.

**45. The dominant symptom of low congenital bowel obstruction is:**

- A. ☐ Bilious vomiting from the birth;
- B. ☐ Bilious vomiting after 24-48 hours of life, then vomiting with bowel content;
- C. ☐ Colicky abdominal pain;
- D. ☐ Spontaneous rectal bleeding;
- E. ☐ Failure to pass a very viscous and adherent meconium.

**46. The bowel aganglionosis in Hirschsprung disease leads to:**

- A. ☐ Excessive peristaltic waves in the aganglionic segment;
- B. ☐ Dilatation of the aganglionic segment;
- C. ☐ Colonic atresia;
- D. ☐ Absence of peristaltic waves in the aganglionic segment;
- E. ☐ Absence of the peristaltic waves at the level of small bowel.

**47. Most cases of primary intussusception occur in children at the age of:**

- A. ☐ 1-2 months;
- B. ☐ 12 months;
- C. ☐ In the first 7 days of life;
- D. ☐ 6-36 months;
- E. ☐ In the first hours of life.

**48. Which of the examinations below is of most value in the diagnosis of bowel intussusception:**

- A. ☐ Plain X-ray film;
- B. ☐ Esophagogastroduodenoscopy;
- C. ☐ Upper gastrointestinal series;
- D. ☐ Scintigraphy;
- E. ☐ Computed tomography.

**49. The following affirmations regarding lymphangiomas are true, excepting:**

- A. ☐ Lymphangiomas are uncommon, hamartomatous, congenital malformations of the lymphatic system that involve the skin and subcutaneous tissues;
- B. ☐ Lymphangioma circumscriptum, the common form of cutaneous lymphangioma, is characterized by persistent, multiple clusters of translucent vesicles that usually contain clear lymph fluid (often compared with frog spawn);
- C. ☐ Cavernous lymphangioma are uncommon and usually arise during infancy;
- D. ☐ Lymphangiomas do not occur on the face;
- E. ☐ In the case of lymphangioma circumscriptum, the underlying lesions constitute abnormal dilated lymph vessels involving the upper part of the dermis.

**50. The following statements regarding acute appendicitis in infants are true, excepting:**

- A. ☐ The acute appendicitis in infants is uncommon and severe;



- B. ☐ The rate of perforation is 80-100% for children younger than 3 years, compared with 10-20% in children 10-17 years old;
- C. ☐ The diagnosis of appendicitis can be difficult in children because the classic symptoms are often not present;
- D. ☐ Common symptoms of acute appendicitis include abdominal pain, fever, and vomiting;
- E. ☐ Diagnostic of acute appendicitis in an infant is a very easy task.