1. What are manifestations of humoral syndrome in acute renal failure?
2. What are pathogenetic factors of kidney failure progression?
3. What are pathogenetic mechanisms for changes of diuresis in hyperglycemia?
4. How diuresis is changed in obstruction of urinary pathways?
5. How the insulin requirements are changed in patients with chronic kidney disease?
6. In what disorders can be attested hyposthenuria?
7. What are manifestations of clinical syndrome in chronic renal failure?
8. What are pathogenetic factors of kidney failure progression?
9. What are prerenal causes of acute renal failure?
10. What are the consequences of reduced glomerular filtration?
11. What are the consequences of urinary pathway obstruction ?
12. What are the pathogenetic mechanisms of enhanced blood pressure in glomerulopathy with nephritic syndrome?
13. What is the mechanism of coagulopathy in nephrotic syndrome?
14. How does glomerular filtration rate (GFR) change in hypovolemia?
15. Find the level of injury and calitative changes in the following general urine analysis: Urine volume - 200 ml; urine with milk apearance, relative density - 1028; proteins - 10g/l; leucocytes-2-3 in the visual field, erythrocytes 1-2 in the visual field, glucose is absent- abs, hyalinic, epithelial and granulous casts bellow 10 -14 in the visual field.
16. How does glomerular filtration rate (GFR) change in glomerulopathy?
17. How does glomerular filtration rate (GFR) change in hypovolemia?
18. What are pathogenetic factors of cardiac failure in patients with uremia?
19. What are pathogenetic mechanism of nephritic renal edema?
20. What are the consequences of compensatory hypertfophy of intact nephrons in the development of chronic kidney disease?
21. What are the consequences of disturbances in hormon inactivation in the kidney in patients with chronic kidney disease?
22. What are the consequences of disturbances in hormon inactivation in the kidney in patients with khronic kidney disease?
23. What are the toxic effects of dimethyl-arginin in chronic kidney disease? Multiplu
24. What pathogenetic factors contribute to reduced glomerular filtration rate in nephritic syndrome?
25. What substances are reabsorbed in co-transport with Na+ ions in the proximal nephrones?
26. What uremic toxins accumulate in the blood of pacients with chronic kidney disease and lead to endothelia dysfunction?
27. How creatinin clearance (CC) is changed in glomerulopathy?
28. How the diuresis is changed in hyperproteinemia?
29. Absorbtion of what substance is disturbed in dysfunction of small intestine mucosa?
30. Absorbtion of what substances is disturbed in large intestine disorders?
31. Accumulation of what metabolic products explain metabolic acidosis in liver failure?
32. Depletion of what neurotransmitter in the brain is found in ammoniacal encephalopathy?
33. How diuresis and urine osmolarity are changed in hyperglycemia?
34. urine osmolarity is changed in experimental animal with metabolic alkalosis?
35. How diuresis and urine osmolarity is changed in hyperosmolar hypervolemia in experimental animal?
36. How diuresis is changed after administration of sublimate solution in experimental animal?
37. How diuresis is changed in pacient with reduced cardiac output?
38. How does glomerular filtration rate (GFR) change in hypervolemia
39. How glomerular filtration rate (GFR) is changed in initial stages of chronic kidney disese?
40. How is explained hemorrhagic syndrome in patients with hepatic and posthepatic jaundice?
41. How the diuresis is changed in hypoproteinemia?
42. How the insulin requirements are changed in patients with chronic kidney disease?
43. How the stomachal tonus and motility is changed in hyperchlorhydria?
44. How the stomachal tonus and motility is changed in hypochlorhydria?
45. How will change the biliary pigment metabolism in haemolytic jaundice?
46. In what disorder can be attested hyposthenuria?
47. In what disorder can be attested leucocyturia?
48. In what disorder can be found hypersthenuria?
49. In what disorders can be attested lipiduria?
50. Level of what biological active substances is enhanced locally in toxic and ischemic kidney injury?
51. Level of what biological active substances is enhanced locally in toxic and ischemic kidney injury?
52. Male patient with liver failure frequently can present testicular atrophy and gynecomastia. What is the pathogenesis of these symptoms?
53. Patient with liver failure frequently can present acne, hirsutism and ‚moon face’’. What is the pathogenesis of these symptom?
54. Reabsorbtion of what substances in the proximal nephron is disturbed in chronic renal failure?
55. What are causes of galactosemia in liver failure?
56. What are causes of steatorrhea?
57. What are changes of the stool are attested in patients with posthepatic jaundice?
58. What are clinical manifestations related to deficiency of liposolubile vitamin A in liver failure?
59. What are clinical manifestations related to deficiency of liposolubile vitamin D in liver failure?
60. What are compensatory reactions which explain changes of diuresis in metabolic alkalosis?
61. What are compensatory reactions which explain changes of diuresis in metabolic acidosis?
62. What are consequences of protein maldigestion?
63. What are electrolytic disturbances triggered by secondary hyperaldosteronism in liver failure?
64. What are electrolytic disturbances triggered by secondary hyperaldosteronism in liver failure?
65. What are endocrine functions of the kidneys?
66. What are features of hepatocyte apoptosis?
67. What are features of hepatocyte necrosis?
68. What are hematological changes in hypersplenism which can develop in liver failure?
69. What are hematological changes in hypersplenism which can develop in liver failure?
70. What are manifestations of clinical syndrome in chronic renal failure?
71. What are manifestations of gastrointestinal autointoxication?
72. What are manifestations of humoral syndrome in acute renal failure?
73. What are manifestations of urinary syndrome in acute renal failure?
74. What are mechanisms of hepatocyte injury in thrombosis of hepatic artery?
75. What are mechanisms of hepatocyte injury in thrombosis of subhepatic vena?
76. What are mechanisms of hepatocyte injury triggered by hemodynamic factor?
77. What are mechanisms of toxic injury of hepatocytes triggered by alcohol?
78. What are metabolic disturbances in patients with chronic kidney disease?
79. What are pathogenetic chains that explain pH dysbalance in liver failure?
80. What are pathogenetic factors of cardiac failure in patients with uremia?
81. What are pathogenetic factors of enhanced ketone bodies production in liver failure?
82. What are pathogenetic factors of kidney failure progression?
83. What are pathogenetic factors which contribute to fatty dystrophy of hepatocytes in liver failure?
84. What are pathogenetic loops in liver fibrosis?
85. What are pathogenetic mecanisms of renal osteodystrophy in chronic kidney disease?
86. What are pathogenetic mechanism of hyperlipidemia in nephrotic syndrome?
87. What are pathogenetic mechanisms for development of hypocalcemia in liver failure?
88. What are pathogenetic mechanisms for development of metabolic acidosis in liver failure?
89. What are pathogenetic mechanisms for development of metabolic alkalosis in liver failure?
90. What are pathogenetic mechanisms of inter-meal hypoglycemia in liver failure?
91. What are pathogenetic mechanisms of nephrotic renal edema?
92. What are pathogenetic mechanisms of poliuria in poliuric phase of acute kidney failure?
93. What are pathogenetic mechanisms of reduced glomerular filtration rate in acute kidney failure?
94. What are prerenal causes of acute renal failure?
95. What are the biochemical changes of the blood are found in patients with cholestatic syndrome?
96. What are the cardiovasculary changes and their mechanisms in patients with cholemic syndrome?
97. What are the causes and pathophysiological mechanisms of conjugated hyperbilirubinemia?
98. What are the causes and pathophysiological mechanisms of unconjugated hyperbilirubinemia?
99. What are the causes for activation of renin-angiotensin-aldosteron system in patient with portal hypertension?
100. What are the causes for posthepatic portal hypertension?
101. What are the causes for prehepatic portal hypertension?
102. What are the causes of chronic renal failure?
103. What are the causes of hepatic jaundice?
104. What are the causes of intrinsic acute renal failure?
105. What are the causes of posthepatic jaundice?
106. What are the causes of prehepatic jaundice?
107. What are the changes at the level of the brain in hepatic encephalopathy caused by hyperammoniemia?
108. What are the consequences of acholia in patients with mechanical jaundice?
109. What are the consequences of disaccharide maldigestion?
110. What are the consequences of poliuria in acute kidney failure?
111. What are the consequences of reduced glomerular filtration rate in acute renal failure?
112. What are the consequences of reduced transamination and deamination of aminoacids in liver failure?
113. What are the consequences of urinary pathway obstruction ?
114. What are the effects of angiotensin II at the level of the kidneys?
115. What are the effects of PGE2 and PGI2 at the level of the kidneys?
116. What are the factors which control glomerular filtration rate?
117. What are the features of hepatic jaundice?
118. What are the features of posthepatic jaundice?
119. What are the features of prehepatic jaundice?
120. What are the features of unconjugated bilirubin?
121. What are the manifestations in glomerulopathy with nephritic syndrome?
122. What are the manifestations in glomerulopathy with nephrotic syndrome?
123. What are the mechanism of enhaced neuronal excitability in patient with chronic kidney disease?
124. What are the mechanisms of hemorrhagic syndrome in patients with hepatic and posthepatic jaundice?
125. What are the mechanisms of hypocalcemia in patients with chronic kidney disease?
126. What are the mechanisms of increased bilirubin level in patients with hepatic jaundice?
127. What are the mechanisms of loss of charge selectivity or the renal filter in glomerulopathy?
128. What are the mechanisms of loss of size selectivity or the renal filter in glomerulopathy?
129. What are the pathogenetic mechanism of anemia in chronic kidney disease?
130. What are the pathogenetic mechanism of spasm of arterioles in cortical nephrones in acute renal failure?
131. What are the pathogenetic mechanisms of changes of diuresis in hyperosmolar hypervolemia in experimental animal?
132. What are the pathogenetic mechanisms of enhanced blood pressure in glomerulopathy with nephritic syndrome?
133. What are the pathogenetic mechanisms of reduced glomerular filtration rate in acute renal failure?
134. What are the pathogenetic mechanisms of reduced glomerular filtration rate in acute renal failure?
135. What are the pathogenetical mechanisms of intense color of urine in patients with hepatic jaundice?
136. What are the pathophysiological mechanisms of pruritus in patients with cholestatic syndrome?
137. What are the toxic effects of methylglyoxal in chronic kidney failure?
138. What biochemical changes in the blood are attested in postepatic jaundice?
139. What biochemical changes in the blood are attested in prehepatic jaundice caused by intravascular hemolytic anemia?
140. What biochemical changes in the blood is attested in hepatic jaundice?
141. What biochemical changes in the blood reflect disturbances in carbohydrate metabolism in liver failure?
142. What biochemical changes in the blood reflect disturbances in carbohydrate metabolism in liver failure?
143. What biochemical test reflects excretory function of the liver?
144. What biochemical test reflects synthetic function of the liver?
145. What biochemical tests reflect hepatocyte injury?
146. What can be a cause of chronic renal failure?
147. What can be the cause of gastrointestinal autointoxication?
148. What cells in the liver are responsible for overproduction of collagen fibers and extracellular matrix in toxic injury of hepatocytes?
149. What cells in the liver are responsible for release of pro-fibrogenic cytokines and trigger fibrosis in toxic injury of hepatocytes?
150. What cells in the liver can convert to myofibroblasts and trigger fibrosis by overproduction of collagen fibers?
151. What change in the blood biochemistry reflects disorders in protein metabolism in liver failure?
152. What circulatory changes are found in cholemic syndrome?
153. What digestive change can be found in bile deficiency?
154. What digestive change can be found in exocrine defficiency of the pancreas?
155. What digestive change can be found in small intestine mucosal dysfunction?
156. What digestive changes can be found in bile deficiency?
157. What digestive changes can be found in exocrine defficiency of the pancreas?
158. What digestive changes can be found in small intestine mucosal dysfunction?
159. What disorder involves nephrotic syndrome?
160. What disorder is manifested by tubular proteinuria?
161. What disorders involves nephrotic syndrome?
162. What disorders lead to development of venous hyperemia in the liver?
163. What does represent acholia?
164. What does represent cholemia?
165. What does represent cholestasis?
166. What does represent hydrostatic mechanism of ascites?
167. What does represent kernicterus in newborns?
168. What does represent oncotic mechanism of ascites?
169. What does represent osmotic mechanism of ascites?
170. What does represent post-streptococal glomerulonephritis?
171. What does represent pyelonephritis ?
172. What factor leads to aminoaciduria?
173. What factor leads to reduced water reabsorbtion in distal and collector renal tubes?
174. What factor leads to reduced water reabsorbtion in proximal renal tubes?
175. What factor stimulates rennin production?
176. What factors favorase the development of renal calculi from calcium oxalate?
177. What factors lead to intestinal maldigestion?
178. What factors lead to reduced glucose reabsorbtion in the kidneys?
179. What factors stimulate renin secretion?
180. What factors stimulate rennin production?
181. What hormones are inactivated in the kidneys?
182. What intracellular electrolytic dyshomeostasis is found in hepatocytes in condition of hypoxia?
183. What intracellular electrolytic dyshomeostasis is found in hepatocyte in condition of ischemia?
184. What is a cause of intrinsic acute renal failure?
185. What is a clinical manifestation related to deficiency of liposolubile vitamin A in liver failure?
186. What is a consequence of disaccharide maldigestion?
187. What is a consequence of lipid maldigestion?
188. What is a consequence of protein maldigestion?
189. What is a feature of hepatocyte apoptosis?
190. What is a hematological change in hypersplenism which can develop in liver failure?
191. What is a manifestation of humoral syndrome in acute renal failure?
192. What is a manifestation of urinary syndrome in acute renal failure?
193. What is a pathogenetic factors of cardiac failure in patients with uremia?
194. What is a pathogenetic loop in liver fibrosis?
195. What is mechanisms of hypoxic hepatocyte injury?
196. What is one of the features of posthepatic jaundice?
197. What is one of the physico -chemical characteristics of conjugated bilirubin?
198. What is one of the biochemical changes in the blood are attested in prehepatic jaundice caused by intracellular hemolytic anemia?
199. What is one of the cardiovasculary changes and their mechanisms in patients with cholemic syndrome?
200. What is one of the consequences of acholia in patients with mechanical jaundice?
201. What is one of the features of posthepatic jaundice?
202. What is one of the features of prehepatic jaundice?
203. What is one of the features of unconjugated bilirubin?
204. What is pathogenetic chain of ascites in liver failure?
205. What is pathogenetical chain of discolored feces in posthepatic jaundice?
206. What is physico -chemical characteristic of conjugated bilirubin?
207. What is the cause for activation of renin-angiotensin-aldosteron system in patient with portal hypertension?
208. What is the cause for hepatic portal hypertension?
209. What is the cause of posthepatic portal hypertension?
210. What is the consequence of reduced transamination and deamination of aminoacids in liver failure?
211. What is the main cell in the brain which is affected in ammoniacal encephalopathy?
212. What is the main pathogenetic chain of prehepatic jaundice?
213. What is the mechanism for deficiency of NADPH in hepatocytes such contributing to ketonemia in liver failure?
214. What is the mechanism for deficiency of oxaloacetate in hepatocytes such contributing to ketonemia in liver failure?
215. What is the mechanism of anemia in hypersplenism triggered by liver failure?
216. What is the mechanism of cholestatic syndrome in hepatic jaundice?
217. What is the mechanism of cholestatic syndrome in posthepatic jaundice?
218. What is the mechanism of enhanced blood level of aromatic aminoacids in the blood in liver failure?
219. What is the mechanism of hepatocyte injury in thrombosis of hepatic artery?
220. What is the mechanism of hepatocyte injury triggered by hemodynamic factor?
221. What is the mechanism of intense coloration of urine in prehepatic jaundice?
222. What is the mechanism of ischemic hepatocyte injury?
223. What is the mechanism of kernicterus in infants?
224. What is the mechanism of overcolorated feces (dark feces) in patients with prehepatic jaundice?
225. What is the mechanism of reduced blood level of branched aminoacids in the blood in liver failure?
226. What is the mechanism of toxic injury of hepatocytes triggered by drugs?
227. What is the mechanism of toxic injury of hepatocytes triggered by alcohol?
228. What is the mechanism of urine darkening in posthepatic jaundice?
229. What is the mechanisms of liver fibrosis triggered by alcohol abuse?
230. What is the pathogenesis of enhanced diuresis in hydremia?
231. What is the pathogenesis of enhanced excitability and tetany in liver failure?
232. What is the pathogenesis of hepatic encephalopathy triggered by hyperammoniemia?
233. What is the pathogenesis of osteomalacia in liver failure?
234. What is the pathogenesis of reduced blood level of branched aminoacids in the blood in liver failure?
235. What is the pathogenetic chain in liver fibrosis?
236. What is the pathogenetic chain of fatty dystrophy of hepatocytes in liver failure?
237. What is the pathogenetic chain of ketonemia in liver failure?
238. What is the pathogenetic factor for astrocyte swelling in ammoniacal encephalopathy?
239. What is the pathogenetic factor of Gilbert syndrome?
240. What is the pathogenetic factor which contributes to fatty dystrophy of hepatocytes in liver failure?
241. What is the pathogenetic mechanism for development of metabolic alkalosis in liver failure?
242. What is the pathogenetic mechanism for development of metabolic acidosis in liver failure?
243. What is the pathogenetic mechanism of inter-meal hypoglycemia in liver failure?
244. What is the pathogenetic mechanism of postprandial hyperglycemia in liver failure?
245. What is the pathogenetic mechanisms for development of hypocalcemia in liver failure?
246. What is the pathogenetic role of NADPH deficiency in development of ketonemia in liver failure?
247. What is the pathogenetic role of oxaloacetate deficiency in development of ketonemia in liver failure?
248. What is the pathogenetical factor of discolored feces in posthepatic jaundice?
249. What is the pathogenetical factor of intense urine color in posthepatic jaundice?
250. What is the pathogenetical mechanism of decolorated feces in patients with hepatic jaundice?
251. What is the pathogeny of compensatory hypertrophy of nephrones in the course of chronic kidney disease?
252. What is the pathogeny of nephron sclerosis in the course of chronic kidney disease?
253. What is the pathophysiological mechanism of Gilbert syndrome?
254. What is the pathophysiological mechanism of pruritus in patients with cholestatic syndrome?
255. What is the source for production of false neurotransmitters in the neurons, contributing to hepatic encephalopathy?
256. What microcirculatory change in found in the kidneys in patient with portal hypertension?
257. What morphological changes contribute to reduced volume of kidneys in chronic kidney disease?
258. What pathogenetic factors contribute to reduced glomerular filtration rate in nephritic syndrome?
259. What pathogenetic mechanisms contribute to reduced ability of the kidneys to concentrate urine in chronic kidney disease?
260. What pathological phenomena involves nephritic syndrome?
261. What process is disturbed in large intestine disorders?
262. What process leads to distal canalicular acidosis?
263. What processes lead to proximal canalicular acidosis?
264. What processes of bilirubin pathway are disturbed in posthepatic jaundice?
265. What specific biochemical test reflects moderate cholestasis?
266. What uremic toxins accumulate in the blood of pacients with uremia?
267. What will be clinical manifestations reflecting disorders in carbohydrate metabolic processes in liver failure?
268. Where are stored collagen fibers in liver fibrosis?
269. Which mechanisms of jaundice are related with increased unconjugated bilirubin?
270. What are the consequences of atrophic gastritis?
271. What are the effects of gastrin secretion?
272. What are the effects of ghrelin action?
273. What are the mechanisms of pancreatic auto-aggression?
274. What are the pathogenetic factor of acute erosive gastritis?
275. What are the pathogenetic factor of chronic reactive gastritis?
276. What are the protective pathogenetic factors of the stomach mucosa?
277. What digestive change can be found in exocrine defficiency of the pancreas?
278. What digestive changes can be found in bile deficiency?
279. What factors contribute to the induction of the inflammatory response in the GIS mucosa?
280. What factors contribute to the loss of immune tolerance of the GIS mucosa?
281. What factors facilitate the colonization of the small intestine with bacteria?
282. What is a consequence of protein maldigestion?
283. What is the pathogenesis of gastric ulcer in the invasion with H.pylori (HP)?
284. What is the pathogenesis of lungs diseases in pancreatitis?
285. What is the pathogenetic factor of chronic non-erosive gastritis?
286. What is the role of alcohol in the pathogenesis of pancreatitis?
287. What is the role of oxidative stress in the pathogenesis of gastric ulcer?
288. What kind of metabolic deficiencies are characteristic for atrophic gastritis?
289. What kind of pancreatic disorder may be due to pancreatic exocrine deficiency?
290. What regulatory factors increase gastric secretion?