DISEASES OF VEINS & VASCULAR TUMORS

1. increased intra-luminal pressure
2. sex (woman), familial predisposition, obesity, standing
3. dilation, hypertrophy
4. stasis dermatitis, secondary ulceration
5. buildup of waste products leading to darkening skin
6. prolonged bed rest, reduced cardiac output, surgery
7. Post-op ambulation, pulmonary saddle embolism resulting in cor pulmonale
8. Benign hemangiomas
9. Strawberry hemangioma, normal, subcutaneous or mucous membrane of mouth and lips
10. one to three years, do not regress
11. large vascular :: thrombosis, fibrosis, hemorrhage
12. port wine stains on the skin, mucosa, and viscera. With raised spongy masses.
13. Von Hippel Landau disease (effects CNS structures)
14. angiosarcoma, Kaposi's sarcoma
15. neoplastic endothelial cells, liver
16. carcinogens (see bottom chloride, arsenic, thorotrast)
17. demineralization
18. neoplastic endothelial and stromal cells
19. AIDS patients, painful purple/Brown nodules on the hands feet and face
20. 60 to 90% open after 10 years, subject to thrombosis, intimal thickening, and atherosclerosis
21. thrombolysis, plasminogen activators
22. plaque becomes unstable= plaque rupture, medial dissection, media streching, proliferative restenosis

INFLAMMATORY VASCULAR DISORDERS

23. Monkeberg medial sclerosis, Reinard phenomenon
24. Takayasu artertis, PAN, Kawasaki, Wegeners Granulomatosis, Temporal ar., Thromoangitis obliterans
25. Monkeberg Medial Sclerosis
26. pipestem calcification, extremities, older individuals
27. no narrowing, go 90° at a joint (often the knee)
28. Raynaud's phenomenon :: White -- blue – red
29. ANS :: normal central and vasomotor responses to cold or emotions
30. ulceration, gangrene, atrophy of skin subcutaneous tissue or muscle
31. inflammatory vasculitis
32. pathogenesis/etiology :: infection, immunological (most common), or unknown
33. small capillaries

34. muscle lumen narrowing/obliteration/dilation/thrombosis
35. steroid or immunosuppressive therapy responsive
36. aortic arch, thickened, distal portions of aortic branches
37. women over 40 :: weakening of peripheral pulses (pulseless disease) or week upper & strong lower
38. necrotized small/medium-sized visceral arteries with no long involvement
39. Young male kidneys and livers
40. fibrinoid necrosis of muscle wall (chronic inflammation plus narrowing of arteries)
41. p-anca (anti-neutrophil antibody, autoimmune)
42. acute, healing, scarred (may overlap)
43. aneurysm, thrombosis, infarct
44. coronary arteries, young children, rash
45. Mucocutaneous lymph node syndrome
46. A Cardiac Sequellae (aneurismal formation of the coronary arteries)
47. temporal arteritis, a.k.a. giant cell arthritis
48. large/small arteries of the head, especially the temporal, Bertie bowl, and ophthalmic arteries
49. ophthalmic
50. type 3 hyper sensitivity, granulomatous
51. necrotizing granuloma of upper respiratory tract , small/medium-sized vessels, and focal glomerulitis
52. c-ANCA, cyclophosphamide (chemo drug)
53. Buerger's Disease
54. Tibial & radial (small) arteries :: microabscesses/granulomatous inflammation
55. Jewish cigarette smoking Men :: Raynaud's or cold intolerance

ANEURSYMS

56. Localized dilation of vessel or chamber :: aorta, then iliac
57. Bounded by arterial wall components :: Artherosclerotic
58. Breach in vascular wall leading to hematoma :: Post Myocardial infact
59. Berry, fusiform, saccular, dissecting
60. small spherical (<1.5 cm) dilation at the brain base, often congenital and may cause pulsitive headaches
61. large spherical (5-20cm) dilation
62. spindle shaped gradual dilation that maybe eccentric/unilateral often in the aorta due to AS
63. Double-barrel-lumen aneurysm was blood in the Tunica media, no dilation of blood vessel needed
64. Type A originates/involves the ascending aorta, Type B originates in the descending aorta
65. Traumatic aneurysm (focal dilation do to muscle layer injury)
66. *atherosclerosis*, infection, post stenosis, syphilis, arteritis, congenital/misc.
67. when imaging is taken for back pain

68. Male 60-80 years of age, hypertension, heart disease
69. intermittent back and abdominal pain, claudication, and lower limb ischemia
70. abdominal aorta :: greater than 50% dilation
71. <5%, 15%, 75%

DISEASES OF BLOOD VESSELS

72. ECs changing behavior based on pathophysiological stimuli
73. Anything (eg. Cytokines, bacteria, hemodynamic stresses, lipids, viruses, hypoxia)
74. express adhesion m. (selectins, integrins, IgG), produce cytokines, growth factor, & vasoactive molecules
75. lumen size change, coagulation change, modified sub endothelial environment
76. Arteriosclerosis (hardening of the arteries)
77. Atherosclerosis (large/medium elastic/muscular arteries w/ lumen reduction), Monkeberg (CA deposits in muscular arteries, no lumen narrowing), Arteriosclerosis (small vessels, distal ischemia)
78. *1. Initial → 2. fatty streak →3. Intermediate* → 4. Atheroma → 5. Fibroatheroma → 6. Complicated
79. men early, women late
80. Homocysteinemia, cytomegalovirus, C. pneumonia, P. gingivalis
81. Early tunica intima lipid accumulation
82. Atheromatous plaques
83. Cells of tunica intima become neoplastic
84. High turbulence areas are damaged
85. Microbial infections yield reaction
86. Response to injury hypothesis
87. EC dysfunction/activation, hyperlipidemia, macrophage & smooth muscle involvement
88. Macrophages, smooth muscle cells :: foam cells
89. Tunica intima increases in size (smooth mc, macrophages w/ cytokines, fat)
90. Monocyte adherence, permeability, and EC replication
91. Hypertension, tobacco, and shear stress
92. Free radical production from phagocytosis/digestion of lipids
93. Chemoattractants & mitogens :: macrophages
94. PDGF & FGF
95. Ulceration, thrombosis, hemorrhage, calcification
96. Acute occlusion, stenosis, aneurysm, embolism
97. Cholesterol crystals/clefts

HEMODYNAMIC DISORDERS

98. hemodynamic forces across capillary walls :: chemical mediators

99. ↑ Hydrostatic pressure, ↓ Plasma colloid osmotic pressure, ↓ Lymph flow, renal retention of NA & H_20
100. ↓ Venous outflow, often the of lower extremities, due to thrombosis/stasis
101. Right heart failure (stasis of venous blood) or renal failure (more sodium → more H20 → Higher BP)
102. loss of serum albumin
103. inflammation, neoplasm, parasitic infection
104. nephrotic syndrome, cirrhosis, malnutrition
105. reduced renal function (primary), heart disease (secondary : ↓ Blood Flowto juxa. apperatus)
106. subcutaneous, pulmonary, brain
107. dependent, ascites, generalized edema/anasarca
108. RHF causing edema of the lower extremities due to gravity
109. Ascites
110. renal failure, more severe, all body tissues
111. generalized edema (FYI, pitting edema is the is one were you press the skin and the 'pit' remains
112. heart failure or microbial microvascular damage
113. Proteinaceous fluid buildup (frothy pink due to RBCs) w/ hemociderin laden macrophages
114. Dyspnea & chest pain
115. ↑ intercranial pressure, herniation, Foramen magnum
116. Active, increased, TO
117. Sympathetics or chemicals :: no
118. Passive, decreased, FROM
119. Hypoxia, ischemia, and/or edema
120. Can be both
121. LHF
122. RHF :: Nutmeg liver
123. Trauma, aneurysm, erosion (microbe/neoplasia), vitamin deficiency, and thrombocytopenia
124. General subcutaneous bruise :: Ecchymosis is large size specific
125. Systemic bruising by metabolic illness, not trauma

HEMOSTASIS & THROMBOSIS

126. Vascular endothelium, platelets, & coagulation system
127. Prostacyclin PG12, ADPase, & NO
128. Insulates the subendothelial collegen from the platelets
129. Heparin-like molecule, anti-thrombin III
130. Production of TPA to convert plasminogen to plasmin
131. Degrades fibrin
132. Von Willebrand's factor, tissue factor synthesis, PAF, TPA inhibitor synthesis

133. Platelet adhesion to exposed collagen :: activate coagulation system
134. Platelets :: Thromboxane (TXA2), ADP, Factor V & VIII, and Calcium
135. Fibrin "cement" formation fusing platelets
136. Factor XII & Tissue Factor :: Formation of fibrin monomers
137. Platelets, fibrin, blood cells :: non-interrupted
138. endothelial damage, altered blood flow, hyper coagulation
139. atherosclerosis, hemodynamic stress, ischemia/vavular damage, radiation, trauma, microbes
140. genetics, homocystein, polycythemia Vera, smoking, neoplasia
141. heart, brain, kidneys
142. prevents renal clearance of coagulation proteins and prevents anticoagulants from reaching injury sites
143. arterial thrombi
144. venous thrombi :: superficial leg veins
145. deep leg thrombosis
146. foot edema & pain, pulmonary embolization, local ischemia, bacterial skin infections
147. Howman's sign
148. dissolution, propagation, organization, recanalization, embolization
149. thromboembolism
150. pulmonary emboli
151. arterial
152. lower extremity, brain, viscera
153. infarction.
154. Nature of vascular supply, rate of occlusion development, hypoxia vulnerability
155. wedge-shaped with hyperemia/inclination at its edges, center has exudates & necrosis
156. Fibrinous exudate with coagulative necrosis
157. Shock :: cardiogenic, hypovolemic, septic
158. red infarct
159. myocardial infarction, cardiac tamponade, cor pulmonale
160. hemorrhage, severe trauma, extensive burns
161. Gram (-) bacteria LPS cell wall → Endotoxin → cytokines → Inflamation → systemic edema → shock
162. heart tissue infarct disrupting normal pumping
163. Vasoactive amine → forceful fast heartbeats → hole formation →reduced pumping volume
164. weeping of plasma proteins since lacking cutaneous protection and insulation
165. IL-1,6,8 and TNF
166. hemostasis mechanisms to maintain BP (↑ HR, Vasoconstriction, Renin-angiotensin-aldosterone)
167. liver/kidney/brain hypoxia and metabolic acidosis
168. enzyme leakage, organ shutdown, mass cell death

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MALIGNANT LYMPHOMAS

169. neoplasm of cells native to lymphoid tissue predominating in the nodes and most often of B-cell origin
170. Lymphadenopathy, ↑ WBC count, infection, weight loss, fever, malaise. :: no
171. Not tender to touch
172. noncontiguous spread to nodes, non-nodal tissue, into blood
173. systemic
174. *follicular*, large B-cell, small lymphocytic lymphoma, chronic lymphocytic leukemia, multiple myeloma
175. exclusively B-cell :: rarely
176. indolent (slow-growing) :: Large B-cell lymphoma
177. indolent progress, small compact unstimulated lymphocytes that 60% of the time spill into the blood
178. chronic lymphocytic leukemia
179. aggressive, rapidly fatal :: high (60 -- 80%)
180. Hodgkin Virgo to lymphoma
181. bone, brain, G. I.
182. Multiple myeloma :: Vertebrate, Skull, long bones
183. Myeloma protein or 'M' spike ::: cytokines (boost plasma cell proliferation & ostoclastic activity
184. Bence-Jones protein
185. Hypocalcaemia, sys infection, renal disease, punch fractures :: very poor (Thalidomide ↑ to 5 years)
186. acute lymphoblastic lymphoma/leukemia (40% of cases), Burkitt's lymphoma
187. aggressive, rapidly progressive, starry sky (abundance of macrophages)
188. mediastinal mass
189. maxilla/mandible, starry-sky histology
190. African form
191. neoplasm of Iris and Sclera, weeping lesion of the mouth, tooth decay
192. young adults
193. secondary cancer
194. cervical or mediastinal :: dysphonia/dysphagia
195. Reed Sternberg cell (owl eyes)
196. lymph nodes → spleen → liver → bone marrow FYI for next Q, EL means Extra-lymphatic site
197. S1 (1 node), S2 (2/2+ on same side of diaphragm or 1 EL site), S3 (node/EL on both sides), S4 (diffuse)
198. Lymphocyte predominant, mixed cellularity, *nodular sclerosis*
199. mature lymphocytes and macrophages
200. nodular node pattern, Reed-sternberg cells, excellent progy
201. equal number of RS cells and non-neoplastic inflammatory cells (mostly eosinophils)
202. lacunar cells and collagen banding (scarring) :: most common in female young adults w/ good progy