

KRS STUDY GUIDES : Quiz Questions : Poirier : "How am I supposed to choose a specific funny quote??"

INTRODUCTION

1. Ground Glass (Smokey, wavy trabeculae)
2. 10/21/08
3. Blood, pus, tumor, hyperemia, inflammation
4. Solid (single layer)
5. Laminated, Spiculated, Codman's Triangle
6. Onion skin, layered (start and stop of uncontrolled aggression)
7. hair-on-end or sunbursted (raises so fast, cannot be covered)
8. Fast growth in one area, but slower more distal
9. Osteosarcoma
10. soft tissue masses
11. those that hurt, associated fever, or looks malignant
12. Inflammatory condition
13. degenerative non-inflammatory condition
14. Fractures & Cortical bone integrity, Chest & abdominal imaging, and acute brain injury (stroke)
15. Everything, but fails to show cortex well (so small fractures may be missed), shows soft tissue VERY well
16. abdominal and pelvic imaging, fails to show inside joints (but real good outside the capsule)
17. Very sensitive, but poorly specific (early, but poor differentiation)

SCOLIOSIS

18. segment that is most displaced from the midline
19. right sided scoliosis
20. Two major curves w/ same amounts of convexity
21. a scoliosis with two curves occurring in one spinal areas
22. The most angulated segment on top and most angulated on the bottom, these segments are used to measure curve
23. acute area of deformity (usuall kyphosis)
24. lateral curvature of the spine associated with an increased concavity anteriorly
25. left sided scoliosis
26. designates the larger(est) curve(s)
27. term used to refer to the smaller(est) curve(s)
28. the first or earliest of several curves to appear, if identifiable
29. prominent ribs on the convexity of the curvature, usually the result of vertebral rot., best seen on forward bending
30. scoliosis with rotated vertebral bodies
31. Fails to correct upon bending, has a rib hump, and a large rotation component to vertebral bodies (thus pulling ribs)
32. Corrects w/ bending, Disappears upon cause removal, w/ minimal rotation of vertebra
33. IDIOPATHIC, neuromuscular, myopathic, congenital, neurofibromatosis, and trauma
34. POSTURAL, limb length inequity, hip contractures, and antalgic (nerve inflammation, inflammation)
35. muscular
36. Infantile :: Adolescent
37. 0-3, left curve, rare, self-resolving
38. 3-10, Females (4:1), Surgery
39. Adolescent
40. 12-16 years
41. Iliac apophysis
42. 15 degrees
43. congenital heart dz, 20 degrees
44. reduced



45. 30.00%
46. Right Thoracic
47. The vertebra deform at their lateral edge (outside stretch=growth, inside compression=retardation) WEDGE
48. Hemivertebra
49. block vertebra, spina bifida vera, vertebral bars, rib fusion, and genitourinary anomalies (kidneys & bladder)
50. Short "C" curve
51. Transitional areas
52. LONG "C" shaped, very debilitating with rapid progression (age 12-18)
53. Left :: an underlying pathology (neuromuscular more common)
54. Polio
55. Duchenne muscular dystrophy
56. Have a curve of 15 degrees or more and are 11 years old or younger
57. Von Recklinghausen's disease :: inherited congenital
58. Neuroectodermal, mesodermal :: mild to severe progressive Scoliosis (10-15%)
59. lateral compressive force, thoracolumbar, osteoporotic patients
60. Hyperkyphosis, IVF enlarge, vertebral scalloping, Cafe-au-lait, fibroma mulluscum, and soft tissue neurofibromas
61. sharp margins
62. sharp margins w/ irregularities :: Polystotic Fibrous dysplasia
63. Flexible, Adam's test
64. idiopathic and asymptomatic
65. Lower back pain
66. Orthoroentgenogram or scanogram (radiograph hip, ankle, and knee)
67. cardiopulmonary, djd, progression, fatigue, jnt dysfunction
68. Unilateral, asymmetrical disc thinning
69. Concave :: apophyseal jt. osteoarthritis
70. concave :: antalgic
71. Ehlers-Danlos & Marfans :: Lack of fibroblasts
72. PA & lateral full spine, lateral bending, and subsequent sectional films
73. Probably due to the ~ 22 full spine x-rays
74. Cobb-Lippman :: Good reproducibility
75. End vertebra parallel lines through endplates, measure inside angle
76. center of body of end vertebra & apical vertebra, measure downside angle
77. greater curve (10 degrees larger)
78. Pedicle method :: SP's are naturally irregular
79. Nash-Moe method, Graded 0-4+
80. That the distal radial epiphysis closes at the same time as the vertebral body epiphysis
81. Fusion of the vertebral ring epiphysis
82. Fusion of the vertebral ring epiphysis
83. Iliac crest apophysis method of skeletal maturity (capping of ilium)
84. Girls 14, boys 16 :: girls 16, boys 18
85. Girls Grade 4, Boys Grade 5
86. Grade 5
87. Double primary :: Primary lumbar w/ compensatory thoracic (the lumbar is the progressive part)
88. Early onset, Early menarche, Early or Absent Risser's sign, 20+ magnitude curve
89. Observation, bracing, surgery
90. Has been shown to ease symptoms & function, but not alter structure
91. Observe w/ x-rays every 3 months. Progression should be less than 5 degrees between x-rays



92. With rib humps, rotation, or rapid progression
93. Milwaukee :: Charleston
94. Rapid progression of immature spine, 40+ curve, when the underlying abnormalites can be treated
95. Harrington rods :: Allow for growth :: Often break

SKELETAL DYSPLASIAS

96. Achondroplasia
97. Disturbance of epiphyseal chondroblastic growth and rhizomelic dwarfism, w/ normal intramembranous ossification
98. Normal length spine but w/ lumbar hyperlordosis, thocacolumbar kyphosis, a prominent abdomen & buttocks
99. Large w/ prominet forehead, depressed nasal ridge, small foramen magnum
100. Pos body scalloping, narrow interpedicular distance, short thick pedicles, thoracolumbar gibbus → bullet vert
101. champagne glass pelvic bowl, small pelvis, short flat ilia, horizontal acetabulum, and short femoral necks
102. Hand layout reminscent of a W, common in Achondros
103. spinal stenosis & brain stem compression
104. intramembranous ossification
105. Autosomal
106. large head w/ small face, abnormal denition, hypermobile shoulders, neural arch defects, hemivertebrae, symphysis pubis diastasis, narrow/cone shaped thorax, reduced height
107. wormian bones, widened sutures (possible hot cross bon apperance)
108. Multiple rows
109. Absent/hypoplastic clavicles, pseudoarthrosis (mid portion), small winged scapulae, narrow cone-shaped chest
110. small bones, very wide pubic symphysis, coxa vara/valga
111. spina bifida, hemivertebrae
112. Hearing loss, dental problems, dislocations hip/shoulder, respiratory distress, and scoliosis
113. Stippled calcification of multiple epiphyseal centers (occurs in 1st year of life)
114. Autosomial dominant (Normal life length), Autosomal recessive (infintile death)
115. Conradi-Hunermann syndrome
116. Achondroplastic dwarfs
117. stippling, asymmetric limb shortening :: Conradi-Hunerman syndrome
118. Trevor's Disease, focal osteocartilaginous overgrowth
119. Mono, poly, or generalized
120. Dysplasia Epiphyseal hemimelica
121. 15, produce normal collagen
122. skeletal (extremities), ocular, and cardiovascular
123. half of normal
124. Arachnodactyly, gracile bones, structural scolio, acetabular protrusion, pectus excavatum/carinatum, joint laxity
125. Lens dislocation
126. Aortic dissection, aortic valve incompetence, pulmonary artery rupture, congenital heart disease
127. Congenital heart disease (MC atrial septal defect)
128. Kyphoscoliosis, Double major, right thoracic scoliosis
129. Posterior scalloping and thinning of pedicles
130. May have a ruptured transverse ligament
131. Collagen type 1
132. osteoporosis, blue sclerae, abnormal dentition, premature otosclerosis
133. imperfecta congenita
134. osteopenia, thic cortices, fractures, deformities
135. melorheostosis, osteopathia striata, osteopetrosis, pyknodysostosis, tuberous sclerosis
136. wax flowing down a candle



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137. late childhood :: joint pain/deform, hyperstosis, & swelling of one lower limb (usually)
138. Streaked or wavy thickening
139. linear bands of bone density from meta to dia, bilateral, w/ sunburst effect in pelvis
140. Osteopetrosis
141. Albers-Schonberg disease
142. multiple bone islands, symmetrical, common in long bones, carpals, & tarsals
143. anemia, thrombocytopenia, serum calcium
144. Bone within a Bone, "Sandwich vertebrae"
145. increase bone density, dwarfish, skeletal fragility
146. Beaked nose, ant/retro jaw, small face, prominent forehead
147. Spoon shaped nails, & acroosteolysis
148. Increase bone density w/ medullary space, wormian bones, hypoplasia of clavicles, block vertebra
149. Chromosome 9 deformity, multisystem
150. Mental retardation, seizures, skin lesions
151. Periosteal warts

SPONDYLOLISTHESIS

152. spine lbreak/destruction, has to be a pars defect, no movement required
153. displacement of vertebrae (disk, facet, or pars defect)
154. displacement posteriorly compared to the segment below (disc degeneration)
155. displacement to the lateral side
156. Always evaluate posterior body lines comparing segment above to those below
157. L5 (90%) :: L4
158. Eskimos, athletes, males, children, and those with SBO
159. STRESS fracture, congenital, acute fracture
160. Pars fracture of L5
161. Wiltse Classification
162. Dysplastic (I), Isthmic (II), Degenerative (III), Traumatic (IV), Pathologic (V), and Iatrogenic (VI)
163. congenital long pedicle
164. Isthmic
165. Fifty Female L4 Facets
166. no
167. None, 50% are even asymptomatic at discovery (inactive)
168. Pain stage, occurs while pars defect is developing
169. fracture through pedicles of C2
170. trauma, but not at the pars, often bilateral facet joint dislocation
171. Stress fracture (A), Elongated pars (B), Acute Fracture (C)
172. Action with excessive extension
173. Between 5-12
174. pain
175. Feels better in a few months because it has a fibrous adhesion
176. Most (50%) :: Inactive spondylo (painless but there)
177. Lytic process :: 3-6months
178. X-Ray, SPECT/MRI
179. Boston overlap :: none
180. patient stands on on leg, leans back, test for spondylo
181. SBO, Trapezoid L5 body, Dome shaped S1, Grade 3+ slippage



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182. Men, over 18+, with buttressing
183. Between 5-15 years old, within 2 years after a fracture
184. Spondyloptosis
185. Hyperlordosis, prominent buttocks, step defect, crepitus, tight hamstrings, pelvic waddle
186. spinous process moves forward (common in congenital case)
187. Inverted Napoleon's Hat, in Meyerdig Grade 3 or worse, visualize the top of L5
188. Extension flexion views or Compression-traction views
189. Flex/Ext or Comp/Traction radiographs, 4mm translation or +11 degrees of angular motion
190. less, overlooked, spondylolisthesis
191. Yes
192. unilateral fracture, they stopped the activity, but the pars never fully healed resulting in Wolfe's law sclerosis & hypertrophy of opposite side (2-3 years)
193. Chiro (L4-5 & SI), Biomechanical evaluation (Pelvis & lower ext)
194. Boston antilordotic brace (acute), or Surgical (chronic)
195. cervical :: C6
196. SBO, anterolisthesis, no inf endplates, small pedicles & articular processes

CERVICAL SPINE TRAUMA

197. Spearing in football, pool dives, etc...
198. 7mm w/ both sides added
199. axial, transverse ligament, unstable
200. Atlas
201. Posterior arch fracture
202. Hyperextension injury, stable, bilateral, and 80% of the time associated w/ other fractures
203. Rotatory atlantoaxial fixation
204. Infants & Children
205. Hangman's fracture
206. Extreme hyperextension leading to a bilateral C2 pedicle fx, rare neuro defects, 25% of time have other assoc. fx
207. Teardrop
208. Auto accidents
209. Traumatic spondylolisthesis
210. C2, ALL, anterior-inferior body
211. During hyperextension :: No!
212. Rare, stable, oblique, damage apical ligament
213. Common, unstable, non-union, occurs at base of dens
214. stable, intra-articular
215. 11 years
216. fractured
217. Compressive hyperflexion
218. Sagittal burst fractures
219. C2 MC :: C3 more severe
220. C6-T2
221. Flexion avulsion when attempting to hyperextend, displacing SP inferiorly, high rate of nonunion
222. Double spinous process sign
223. Hyperflexion w/ rotation, interspinous & facet capsular ligaments
224. widens :: Bowtie sign & perched facets
225. neurological defects, disc herniation
226. Anteriolisthesis & perched facets

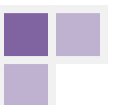


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- 227. X-ray showing large ADI & failed steele rule of thirds
- 228. Grade 2-4
- 229. Neck complaint + Fracture/Dislocation
- 230. Asymptomatic, w/ mild tenderness, and muscle injury
- 231. disc/ligament/neurologic/brain injury, dislocation, and fracture
- 232. widened prevertebral space, dysphagia, hoarseness, air in trachea (fracture)
- 233. scalene & longus colli
- 234. acute ligament sprain
- 235. during hyperflexion, or when a hyperextension fracture leads to dislocations
- 236. 11 + degrees
- 237. 1-3mm
- 238. greater than 2mm
- 239. Davis series
- 240. +3mm intersegmental translation
- 241. Acute disc widening w/ severe ligament disruption
- 242. hyperextension, 5
- 243. anterior vacuum sign (posterior tends to be DJD)

FRACTURE OF THORACIC/LUMBAR/SACRO

- 244. disruption of 2+ columns is unstable
- 245. Postmenopausal females
- 246. Secondary osteoporosis & acute trauma
- 247. T11-L2
- 248. T7
- 249. axial compression w/ flexion, wedge
- 250. biconcave
- 251. (A) partial vertebral body marrow edema involvement :: (P) complete vertebral body marrow edema involvement, pos vert bulging, pedicles are involved
- 252. collapsed (plana)
- 253. sclerotic section within the body
- 254. endplate slips forward, due to anterior compression
- 255. Paraspinal hemorrhage & abdominal ileus (stasis)
- 256. retropulsion of body fragments :: widened interpedicle distance
- 257. Direct blow or lateral flexion
- 258. Uretur/kidney damage, hematuria, and ossification between TPs, pain
- 259. Fracture migrates downwards
- 260. chance fractures (seat belt)
- 261. empty vertebra sign
- 262. repeated hyperextension w/out chance to union
- 263. Children, L5-S1, during compress/ext or distract/flex
- 264. Horizontal at the 3-4th sacral level below the SI joint
- 265. Cannot be seen on laterals & 50% have associated organ damage
- 266. arcuate line & foramina
- 267. iliac wing, avulsion, & unilateral straddle
- 268. Duverney's fracture, lateral forces
- 269. Malgaigne
- 270. Unstable, common
- 271. Bucket has a contralateral associated fractures & diastasis



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- 272. L5 transverse process fracture
- 273. MVA or or auto vs. pedestrian :: Posterior rim & central acetabular
- 274. Dashboard fracture
- 275. Traumatic protusio acetabuli, +5mm femoral head past kholer's teardrop
- 276. athletes & children
- 277. Sartorius (ASIS), Rectus Femoris (AIIIS), Hamstring (Ischial tuberosity), and adductors
- 278. Ischial tuberosity, Rider's bone
- 279. straddle fractures
- 280. Bilateral fracture of superior & inferior rami
- 281. Bladder or urethral tear
- 282. Sprung pelvis
- 283. 8mm adults, 10mm children
- 284. Cleidocranial dysplasia
- 285. Geriatrics w/ osteoporosis (minimal trauma, often females)
- 286. Subcapital
- 287. Lateral & medial femoral circumflex arteries are cut
- 288. MRI (bone scan misses many)
- 289. Extracapsular proximal femoral fracture
- 290. Posterior :: Dashboard (Blow to knee with hip flexed & legs in)
- 291. Pos acetabular rim fracture, Ant femoral head fracture
- 292. Up :: Down
- 293. SCFE
- 294. Type I
- 295. Limp, hip pain into thigh & knee, limited abduction & internal rotation, gluteus medius weakness
- 296. Abnormal Klein's line

UPPER EXTREMITY INJURIES

- 297. Middle
- 298. Because its so rare
- 299. force from distal end
- 300. Post-traumatic osteolysis
- 301. Body & neck
- 302. Internal rotation (swimming)
- 303. Bankart Fracture
- 304. anterior GH dislocation
- 305. Hill-Sach's, recurrent anterior dislocation
- 306. hatchet, internal rotation
- 307. Hill-sachs, Flap fracture (great tub fract), or bankart lesion
- 308. Anterior
- 309. Luxatio erecta
- 310. Posterior
- 311. Mild AC ligament sprain (no x-ray findings)

