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Musculoskeletal Lab #1

G Abrams, S Ramsburgh
M2 Musculoskeletal
Fall 2008
Musculoskeletal Sequence Lab # 1

181 Healing fracture
182 Osteomyelitis
183 Renal osteodystrophy
184 Paget’s disease of bone
Healing Fracture
Callus
Week 1

• Necrotic debris
• Hemorrhage
• Granulation tissue – macrophages
• Primitive mesenchyme – edematous, “infiltrative,” pre-osteoblast, chondroblast
Callus
Week 2-3

• Less edematous
• Pseudosarcomatous appearance – mitoses frequent, hyperchromatic nuclei
• Primitive osteoid – cartilage
• Regular maturation
Callus
Week 3-5

- Woven bone with rims of plump osteoblasts
- Stromal maturation – loose, bland, vascular
- Cartilage – endochondral bone
Callus
Week 5+

- Benign regular pattern
- Fatty vascular marrow
- Early lamellar bone
- Osteoblasts less conspicuous
Fracture Repair - Callus

- Intramembranous bone formation
- Endochondral bone formation
- Remodeling
- Woven bone, cartilage fibrous tissue
- Osteoprogenitor cell
Osteomyelitis
Renal osteodystrophy
(osteitis fibrosa cystica)
Secondary hyperparathyroidism
Paget’s Disease of Bone (osteitis deformans)
Musculoskeletal Sequence Lab # 2

193 & 197  Rheumatoid arthritis
196      Osteoarthritis
12       Gouty tophus
111      Keloid
174      Hemangioma of infancy
Rheumatoid arthritis
Osteoarthritis
Gouty tophus
Keloid
Hemangioma of infancy
Musculoskeletal Sequence  Lab # 3

185  Osteochondroma
186  Chondrosarcoma
192  Osteoid osteoma
187  Osteogenic sarcoma
  48  Metastatic adenocarcinoma
176  Multiple myeloma
Osteochondroma
Osteochondroma
Chondrosarcoma
Osteoid osteoma
Osteoid Osteoma
Osteogenic sarcoma
Metastatic adenocarcinoma
Multiple myeloma
M-2 Musculoskeletal Lab -1

Image of Olympic rings removed

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