Level-1 Semester-2

Pathology - MSS

BERLIN

8L.E

SCAN ME

MCQ Lecture 1

Osteodystrophy

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MCQ on Osteodystrophy

1. **The following is NOT a cause of osteoporosis:-** a) Old age b) Chronic osteomyelitis c) Cushing syndrome d) Hyperthyroidism e) Malnutrition	B
2. **In Paget disease of bone, which is true:-** a) Rarely affects skull b) May cause heart failure c) May be complicated by the development of osteochondroma d) Is associated with lower levels of serum alkaline phosphatase e) Usually appears before the age of 40	B
3. **Mosaic pattern of bone trabeculae is characteristic feature of:-** a) Osteoporosis b) Rickets c) Osteomalacia d) Osteitis fibrosa cystica e) Paget's disease	E
4. **The following bone disease may predispose to osteosarcoma:-** a) Osteoporosis b) Rickets c) Osteomalacia d) Osteitis fibrosa cystica e) Paget's disease	E
5. **Osteoporosis is a:-** a) Congenital disease b) Inflammatory disease c) Metabolic disorder d) Inherited disorder e) Neoplastic disorder	C

6. In osteoporosis, which is true:- a) Decreased incidence of bone fracture b) An association with Cushing syndrome c) A lack of active Vitamin D d) Reduction of bone mineralization e) Thickening of cortical bones	B
7. Rickets is a:- a) Congenital disease b) Inflammatory disease c) Metabolic disorder d) Inherited disorder e) Neoplastic disorder	C
8. Rickets is characterized by:- a) Defective bone formation b) Decrease in the total mass of bone without structural abnormalities c) Decrease in the total mass of bone with other structural abnormalities d) Deficient mineralization of bone e) Disturbance of the architecture of bone	D
9. The cause of rickets is:- a) Immobilization b) Endocrine disorder c) Vit D deficiency d) Primary biliary cirrhosis e) Hyperparathyroidism	C
10. Craniotabes is characteristic feature of:- a) Osteoporosis b) Rickets c) Osteomalacia d) Osteitis fibrosa cystica e) Paget's disease	B

11. **All the followings are signs of rickets except:-** a) Rachitic rosary b) Harrison sulcus c) Frontal bossing d) Leontiasis ossea e) Pigeon chest	D
12. **All these changes occur in rickets except:-** a) Thickening of costo-chondral junction b) Failure of calcification of osteoid tissue c) Bossing of frontal and parietal skull bones d) Hypercalcemia e) Delayed eruption of teeth	D
13. **Which of the followings is characterized by deficient synthesis of collagen type 1 fibers:-** a) Osteopetrosis b) Osteogenesis imperfecta c) Rickets d) Paget disease e) Osteitis fibrosa cystica	B
14. **Brittle bone disease is caused by:-** a) Increased osteoclast activity b) Decreased osteoclast activity c) Hereditary deficiency of collagen type 1 d) Vitamin D deficiency e) Hyperparathyroidism	C
15. **Quantitative reduction in otherwise normal bone refers to:-** a) Osteopetrosis b) Rickets c) Osteoporosis d) Osteogenesis imperfecta e) Osteitis deformans	C

16. Which of the followings is a congenital bone disease:- a) Rickets b) Osteomalacia c) Achondroplasia d) Osteoporosis e) Paget disease	C
17. Which of the followings is a metabolic bone disease:- a) Osteopetrosis b) Achondroplasia c) Osteomalacia d) Osteomyelitis e) Osteosarcoma	C
18. Mode of inheritance in Osteogenesis imperfecta:- a) Autosomal dominant b) Autosomal recessive c) X-linked dominant d) X-linked recessive e) Multimodal inheritance	A
19. Blue sclera, hearing defect & dental abnormalities are associated with:- a) Osteopetrosis b) Osteomalacia c) Osteoporosis d) Osteogenesis imperfecta e) Paget disease	D
20. Marble bone disease is associated with:- a) Osteogenesis imperfecta b) Osteopetrosis c) Osteomalacia d) Osteomyelitis e) Osteoporosis	B

21. **Which of the following lesions is associated with dense stone like bone formation:-** a) Osteomalacia b) Rickets c) Osteopetrosis d) Osteogenesis imperfecta e) Osteoporosis	C
22. **Which of the following lesions is caused by impaired osteoclast activity:-** a) Osteogenesis imperfecta b) Osteoporosis c) Osteopetrosis d) Osteomyelitis e) Osteosarcoma	C
23. **Mode of inheritance in lethal form of osteopetrosis:-** a) X-linked in adults b) X-linked in infants c) Autosomal dominant in adults d) Autosomal recessive in infants e) Autosomal dominant in infants	D
24. **Bone marrow suppression is a common association with:-** a) Osteogenesis imperfecta b) Osteopetrosis c) Osteomalacia d) Paget disease e) Osteochondroma	B
25. **The main cause in the development of osteopetrosis:-** a) Defect synthesis in collagen type 1 b) Vitamin D deficiency c) Hyperparathyroidism d) Impaired osteoclast activity e) Increased osteoclast activity	D

26. Qualitative abnormality with defect in bone mineralization is seen in:- a) Rickets b) Osteoporosis c) Osteopetrosis d) Osteogenesis imperfecta e) Paget disease	A
27. Scurvy is caused by deficiency in which vitamin:- a) Vit A b) Vit D c) Vit B d) Vit C e) Vit K	D
28. Subperiosteal hemorrhage can be seen in which hormone deficiency:- a) Vit A b) Vit B c) Vit C d) Vit D e) Vit E	C
29. Gigantism & acromegaly are caused by:- a) Hyperpituitarism b) Hypopituitarism c) Hyperthyroidism d) Hypothyroidism e) Hypogonadism	A
30. Which renal disease can lead to renal osteodystrophy:- a) Chronic renal failure b) Renal cyst c) Renal cell carcinoma d) Acute renal failure e) Acute glomerulonephritis	A

31. Which of the following is classified as primary osteoporosis:- a) Postmenopausal osteoporosis b) Endocrinopathy c) Malnutritional osteoporosis d) Drug-induced osteoporosis e) Osteoporosis with immobilization	*A*
32. Involutional type-osteoporosis is seen in:- a) Malnutrition b) Corticosteroids c) Hyperthyroidism d) Aging individuals e) Young and juveniles	*D*
33. The most common risk factor of osteoporosis is:- a) Malnutrition b) Malabsorption c) Post-menopausal estrogen deficiency d) Hyperthyroidism e) Cushing syndrome	*C*
34. Idiopathic type-osteoporosis is seen in:- a) Young and juveniles b) Post-menopausal estrogen deficiency c) Aging individuals d) Cushing syndrome e) Hyperthyroidism	*A*
35. All of the following endocrine disorders can lead to osteoporosis except:- a) Hypogonadism b) Hypergonadism c) Hyperthyroidism d) Hyperparathyroidism e) Cushing syndrome	*B*

36. The commonest site affected by osteoporosis:- a) Femur b) Vertebral bodies c) Pelvic bones d) Metacarpal bones e) Skull bones	B
37. Significant loos of weight may occur as a result of:- a) Rickets b) Osteomalacia c) Osteopetrosis d) Vertebral osteoporosis e) Osteogenesis imperfecta	D
38. The main radiological modality for diagnosis osteoporosis is:- a) Conventional radiography b) Ultra sound c) DEXA scan d) MRI e) Angiography	C
39. DEXA scan is performed mainly for:- a) Measurement of bone mineralization b) Detection of periosteal elevation c) Detection of collagen type d) Measurement of bone density e) None of the above	D
40. Bisphosphonates are used for treatment of:- a) Osteoporosis b) Osteopetrosis c) Rickets d) Osteomalacia e) Osteomyelitis	A

41. Vitamin D deficiency in adults leads to:- a) Rickets b) Osteomalacia c) Osteoporosis d) Osteomyelitis e) Osteosarcoma	*B*
42. Accumulation of unmineralized matrix is a characteristic feature of:- a) Osteoporosis b) Paget disease c) Hyperparathyroidism d) Rickets e) Osteopetrosis	*D*
43. All of the followings are features of osteomalacia except:- a) Bending of femur and tibia b) Contracted pelvis c) Bone marrow failure d) Increased lumbar lordosis e) High susceptibility to fractures	*C*
44. Childhood manifestation of defective bone mineralization refers to:- a) Osteoporosis b) Osteomalacia c) Paget disease d) Rickets e) Osteogenesis imperfecta	*D*
45. All of the followings are causes of rickets except:- a) Increased Vit D uptake b) Decreased exposure to sunlight c) Premature infants d) Hypocalcemia e) Defective absorption of Vit D	*A*

46. Which of the following features is consistent with rachitic metaphysis:- a) Calcified matrix between chondrocyte columns b) Non degeneration of cartilage cells c) Cartilage cells replaced by capillary loops d) Lamellar bone formation e) Osteoid matrix deposition	B
47. All of the followings are skull manifestations of rickets except:- a) Craniotabes b) Delayed closure of fontanelles c) Delayed dentition d) Harrison sulcus e) Frontal bossing	D
48. Flat occipital skull bones is known as:- a) Bossing b) Rachitic rosary c) Craniotabes d) Platybasia e) Trefoil appearance	C
49. Swelling of costo-chondral junctions in rickets is known as:- a) Frontal bossing b) Craniotabes c) Pigeon chest d) Rachitic rosary e) Harrison sulcus	D
50. Protrusion of sternum in rickets leads to the appearance of:- a) Frontal bossing b) Craniotabes c) Pigeon chest d) Rachitic rosary e) Harrison sulcus	C

51. Which of the following is not a chest manifestation of rickets:- a) Craniotabes b) Rachitic rosary c) Harrison sulcus d) Pigeon chest e) Protruded sternum	A
52. Vertebral manifestations of rickets include all of the followings except:- a) Lordosis b) Scoliosis c) Kyphosis d) Trefoil appearance e) None of the above	D
53. Trefoil appearance in rickets is characteristic for:- a) Skull b) Chest c) Pelvis d) Vertebrae e) Femur	C
54. Increased osteoclast activity may occur as a consequence of:- a) Osteopetrosis b) Hyperparathyroidism c) Rickets d) Osteomalacia e) Osteogenesis imperfecta	B
55. Which of the following bone disorders can occur with MEN syndrome:- a) Osteogenesis imperfecta b) Osteopetrosis c) Osteomalacia d) Osteitis fibrosa cystica e) Paget disease	D

56. Chronic renal disease is associated with all of the followings except:- a) Secondary hyperparathyroidism b) Metabolic alkalosis c) Hyperphosphatemia d) Decreased activation of Vitamin D e) Osteomalacia	B
57. Which disorder isn't associated with hyperparathyroidism:- a) Marble bone change b) Osteoporosis c) Brown tumor d) Osteitis fibrosa cystica e) Osteitis fibrosa	A
58. Brown tumor is a characteristic finding of:- a) Osteopetrosis b) Rickets c) Osteogenesis imperfecta d) Osteomalacia e) Hyperparathyroidism	E
59. Osteitis fibrosa cystica can be found in case of:- a) Osteomalacia b) Rickets c) Osteogenesis imperfecta d) Hyperparathyroidism e) Osteomyelitis	D
60. Reparative giant cell granuloma of hyperparathyroidism refers to:- a) Osteitis fibrosa cystica b) Osteoporosis c) Brown tumor d) Rickets e) Paget disease	C

61. Increased number of bizarre osteoclasts at moth-eaten bone trabeculae can be seen in:- a) Osteomalacia b) Osteopetrosis c) Osteogenesis imperfecta d) Osteitis fibrosa e) Osteosarcoma	D
62. SQSTM 1 gene mutation is involved in which of the following lesions:- a) Osteogenesis imperfecta b) Osteopetrosis c) Rickets d) Hyperparathyroidism e) Paget disease	E
63. Juvenile Paget disease of bone is associated with mutation in:- a) SQSTM1 gene b) P53 gene c) RANK gene d) RB gene e) C-myc gene	C
64. Viral infection of osteoclasts is involved in the pathogenesis of:- a) Osteomalacia b) Paget disease c) Brown tumor d) Osteopetrosis e) Osteogenesis imperfecta	B
65. Lion face (Leontiasis ossea) is a characteristic finding in:- a) Paget disease b) Osteomalacia c) Rickets d) Osteogenesis imperfecta e) Osteomyelitis	A

66. Invagination of skull base in paget disease is referred to as:- a) Craniotabes b) Leontiasis ossea c) Platybasia d) Frontal bossing e) Kyphosis	C
67. Chalk stick type fracture of long bones is characteristic of:- a) Osteomalacia b) Paget disease c) Osteoporosis d) Osteopetrosis e) Osteomyelitis	B
68. Secondary osteosarcoma can occur as a result of:- a) Paget disease b) Osteomalacia c) Osteomyelitis d) Osteogenesis imperfecta e) Osteitis fibrosa cystica	A
69. Which of the following bone disorders may be associated with heart failure:- a) Osteomalacia b) Osteogenesis imperfecta c) Osteomyelitis d) Paget disease e) Rickets	D
70. The jigsaw puzzle like appearance of bone trabeculae is characteristic of:- a) Osteopetrosis b) Osteomalacia c) Paget disease d) Rickets e) Osteitis fibrosa cystica	C