

M.S. ORTHOPAEDICS

SYLLABUS

THEORY

1. Methods of Clinical Examinations
2. Basic Sciences

- (A) Structure & functions of Bone Cartilage Synovium Muscle Ligment Tendon
- (B) Relevant surgical Anatomy of Axial and appendicular skeleton
Physiologic basis of functioning of skeletal system
- (C) Biochemical basis of function of Bone
- (D) Pathologic basis of Orthopaedic diseases
- (E) Pharmaco therapeutics in Orthopaedics
- (F) Microbiological basis of Orthopaedic infection
- (G) Orthopaedic implants, Metals, Corrosion, Lubrication and implant failure
- (H) Research Methodology
Refining a research question, Steps involved in refinement, formulating a hypothesis, steps involved in preparation of research protocol, data collection and data presentation
- (I) Statistics
- (J) Level of evidence

3. Traumatology

Injuries of axial and appendicular skeleton and associated soft tissues, their clinical examination, radiography and modes of treatment

General Consideration: Fracture healing,
 Conservative treatment of fractures
 Internal fixation
 principles External
 fixation principles
 Open fractures
 Pathologic fractures
 Bone grafting Poly Trauma Trauma
 Care
 Individual injuries to upper limb, lower limb, spinal column,
 shoulder girdle and pelvis girdle in detail

4. Diagnostic Imaging in Orthopedics Radiography

MRI and CT scan Nuclear Medicine Ultrasonography

5. Metabolic Bones diseases
6. Endocrine disorders of Bone
7. Bone & Joint infection
8. Poliomyelitis of skeletal system
9. Cerebral palsy and other spastic disorders

10. Systemic complication in Orthopedics

Shock Crush syndrome DIC Thromboembolism
 Fat Embolism syndrome
 Gas gangrene
 Tetanus

11. Orthopaedic anaesthesia, Regional blocks, Pain management and Care of critically ill patient
12. Neoplasms of Bone & Joint
13. Osteoarthritis
14. Rheumatoid arthritis
15. Disorders of synovium
16. Peripheral Nerve injuries and dysfunction
17. Biomaterials in orthopaedics
18. Ilizarov – Basic principles and principles of deformity correction
19. Arthroscopy
20. Arthroscopy
21. Hand injuries with reconstruction principles
22. Re implantation
23. Regional Orthopaedic disorders
24. Congenital anomalies
25. Paediatric Orthopaedics
26. Analysis of Gait
27. Microsurgery in Orthopaedics
28. Arthrodesis
29. Prosthetics and Orthotics
30. Amputation
31. Rehabilitation Orthopaedics
32. Disability evaluation
33. Bone substitutes
34. Recent advances in Orthopaedics

Course duration

3 years – Posting in each unit by rotation and 1 month each in physical Medicine, Plastic Surgery Anaesthesia and intensive care

Teaching Schedule

1. Clinical case discussion every day
2. Topic presentation – once a week
3. Journal club – once a week
4. Continuing orthopaedic education programme at least twice a year
5. Seminar once in two weeks
6. Routine ward word and preoperative evaluation
7. Performing and assisting operation under guidance of staff members
8. Casualty management under supervision

9. Outpatient and plaster room management
10. Maintenance of Log book

PROCEDURES THAT SHOULD BE DONE INDEPENDENTLY UNDER SUPERVISION

1. Reduction and plastering of common fractures in upper and lower limbs - 10
2. Reduction and immobilization common dislocations in upper and lower limbs - 10
3. Application of upper tibial, lower femoral and skull traction - 10
4. Open reduction and plate and screw fixation of forearm fracture - 3
5. Open reduction and plate and screw fixation of humerus fracture - 2
6. Open reduction and nailing of femur fracture - 2
7. Open reduction and nailing of tibial fracture
8. Hemoarthroplasty - 3
9. Fixation of trochanteric fracture - 3
10. Carpal tunnel decompression, DQ release and trigger finger release - 2 each
11. BK and AK amputation - 1 each
12. Surgery for recurrent dislocation of patella and shoulder - 1 each

DISSERTATION

Aim: The candidates to write a Dissertation is to familiarize him/her with research methodology. The work should be feasible, economical and original. The Dissertation may be normally restricted to the size of 100 pages. Only contemporary and relevant literature may be reviewed. The objectives of the study should be well defined. As far as possible, only clinical or laboratory data of investigations of patients or such other material easily accessible in the existing facilities should be used for the study. Statistical methods used for analysis should be described in detail.

The protocol of Dissertation should be submitted to the office within three 3 months of joining the Medical college. The Dissertation is to be submitted 6 months before the commencement of the examination.

Text Books Recommended

Prescribed Books

1. Graham Apley – System of Orthopaedics
2. Fractures and Joint injuries – Watson Jones
3. Orthopaedics – Samuel F Turck
4. Mercer Orthopaedic Surgery
5. Outline of fractures – Adam's
6. Outline of Orthopaedics – Adam's
7. Clinical Surgery – Das – Chapter on Orthopaedics
8. Crawford Adam's – Operative techniques (orthopaedics)
9. Text book of Orthopaedics and fractures GS Kulkarni

Reference Books

1. Campbell's Operative Orthopaedics
2. Tachdjian's Pediatric orthopaedics
3. AO principles of fracture management
4. Rockwood and Green Fractures in adults
Fractures in children

Journals

JBJS
American and
British Indian
Journal of
Orthopaedics
Journal of
aediatic
Orthopaedics
