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## Learning Objectives for Rotations in Plastic Surgery Year 3 Basic Clerkship

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### I. WOUND MANAGEMENT

- a) Tetanus immunization. Indications for active immunization with tetanus toxoid and passive immunization with immune globin.
- b) Identification of clean, contaminated and infected wounds. Understanding of which can be closed immediately, which require delayed closure, and why.
- c) Understanding of principles of wound management - protection from contamination, irrigation, debridement of foreign material and non-viable tissue, and identification of a tissue deficit.
- d) Skin Grafts:
  - indications for skin grafts
  - conditions necessary for their survival
  - choice of donor site
  - after-care of donor site
  - types of grafts (FTSG vs STSG)
- e) Skin Flaps:
  - understanding of situations in which skin grafts are not suitable and where flap coverage is indicated
  - ability to determine viability of traumatically created flaps

### II BURNS

- a) Describe the classification of burns - 1<sup>st</sup> degree, 2<sup>nd</sup> degree and 3<sup>rd</sup> degree.
- b) Be able to estimate the extent of body surface area burned by the Rule of 9's in adults and children.
- c) Describe the history and physical findings that suggest inhalation injury.
- d) Understand the initial management of a burn patient, including airway and fluid management, and monitoring of the progress of treatment.
- e) Describe the early care of the burn wound, including the indications for escharotomies.
- f) Understand the early management of electrical injuries.

### III. FACIAL INJURIES

- a) Describe the emergency treatment of a patient with a facial injury, including ABC's, the physical and radiological assessment of the C-spine, and assessment for other co-existing injuries.
- b) Describe the principles of treatment of lacerations and other soft tissue injuries of the face.
- c) Demonstrate the normal anatomy and methods of examination of the facial bones. Describe the changes with fractures of the nasal bones, zygomas, maxilla and mandible, including nerve deficits, malocclusion, and eye signs.
- d) Recognize the normal radiological anatomy of facial bones, and be able to point out fractures on X-ray, CT scan.
- e) Understand the principles of treatment of fractures of the facial bones.

### IV. HANDS

- a) Bones and Joints: Describe metacarpal and phalangeal fractures, and identify them on X-ray. Describe the cause and deformity of "ski pole thumb". Describe the position of safety for hand splitting.
- b) Flexor and Extensor Tendons: Describe deficit when tendon divided, timing of repair, and emergency treatment when definitive repair will be delayed.
- c) Nerves: Describe deficit following division of median, ulnar or radial nerve. Describe timing of repair and expected time for return of function.
  - Carpal Tunnel Syndrome
- d) Hand Infections: Paronychia, pulp space infection, acute purulent tenosynovitis, palmar space infection, cellulitis, lymphangitis and septic arthritis. Organisms, drainage and antibiotics.
  - Definitions
  - Principles of Treatment
- e) Amputations: anesthesia, debridement, closure and rehab.
  - Digital, Hand, Extremity Amputations:
    - indications for and contraindications to replantation
    - preservation of amputated parts during transfer
- f) Dupuytren's Contracture
  - Definitions
  - Principles of Treatment

## V. CONGENITAL ANOMALIES

### a) Cleft Lip & Palate:

- need to search for associated anomalies
- ability to describe cleft accurately
- need for pre-surgical orthopedics
- ability to advise parents re feeding
- understand functioning of a cleft palate team and know how to access one
- understand the timing of surgical repairs
- be aware of the multiple on-going problems (feeding, hearing, speech, Facial growth, social)
  - ability to diagnose and understand significance of submucous cleft palate

### b) Vascular Anomalies:

- Hemangiomas:
  - understand the natural history of hemangiomas
  - understand the urgency of treatment when an orifice or the visual axis is obstructed
- Vascular Malformations:
  - understand the difference between a vascular malformation and a hemangioma

### c) Meningomyelocele:

- recognize meningomyelocele and be aware of need for wound protection, neurological assessment and immediate neurosurgical referral

### d) Nevi:

- recognize congenital pigmented nevi, dysplastic and atypical nevi and sebaceous nevi, and be aware of the risks associated with these lesions