ELECTROTHERAPY

FSC PHYSIOTHERAPY TECHNIQUES I

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Low Frequency Current

- - An alternating current having a frequency of 0 to 100Hz.
  Action
  - Stimulation of nerve and muscle
  - To produce muscle contraction and relaxation
  Types
    - Faradic current
    - Galvanic current
    - Sinusoidal current
- -Dynamic current

FARADIC CURRENT

- Two phases
- PD: 1ms
- No polarity needed
- Surged
- Mild prickling sensation

GALVANIC CURRENT

- Faradic is high frequency
- Current (50-100Hz),where as galvanic is low frequency
- Single phase
- PD is greater than 1ms
- Polariry needed
- Galvanic give stabbing type sensation

THERAPEUTIC USES OF LOW FREQUENCY CURRENTS

- Bursitis, Arthritis, Muscle spasm relaxation, increase arrhythmia , reduction of pain
- Prevention in DVT
- Range of motion
- Nerve stimulation , decrease swelling
- Contractions of muscle, circulation disorders
- Soft tissues injuries, joint disorders

EFFECTS

- Inflammation
- Skin lesions & dermatological disorders
- Cardiac pacemakers
- Infection
- Thrombosis
- Active TB or cancer
- Nerve sensitivity

ADVANTAGES & DISADVANTAGES

- **Advantages**
  - Low frequency current is used for long distance travelling.
  - It is a short duration interrupted current at produces tetanic contraction.

  Disadvantages
  - The amount of current that is sent is proportional to the frequency.
  - At low frequency the light flickers more noticeable. Even at the frequency of 60Hz needs to be transmitted.
  - Therefore low frequency current is not suitable when large amount of current.
    process of deep tissue injuries can be speed up.

CONCLUSION

- - It is concluded that low frequency current is more useful than high frequency current.
  - High frequency current is defined as which frequency of more than 1000Hz.
  - Used to produce heat in deep tissues so that healing process of deep tissue injuries can be speed up.
  - Used in internal injuries such as close fracture.

ANY QUESTIONS


Thank
you