Skeletal Traction

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Skeletal traction

Skeletal traction applied directly to the bone either by a pin or wire through the bone. **(eg- Steinmann pin, denham pin, kirschner wire)**

SKELETAL TRACTION

SITES

- Upper tibial
- Lower femoral
- Lower tibial
- Calcaneus
- Olecrenon
- Metacarpal

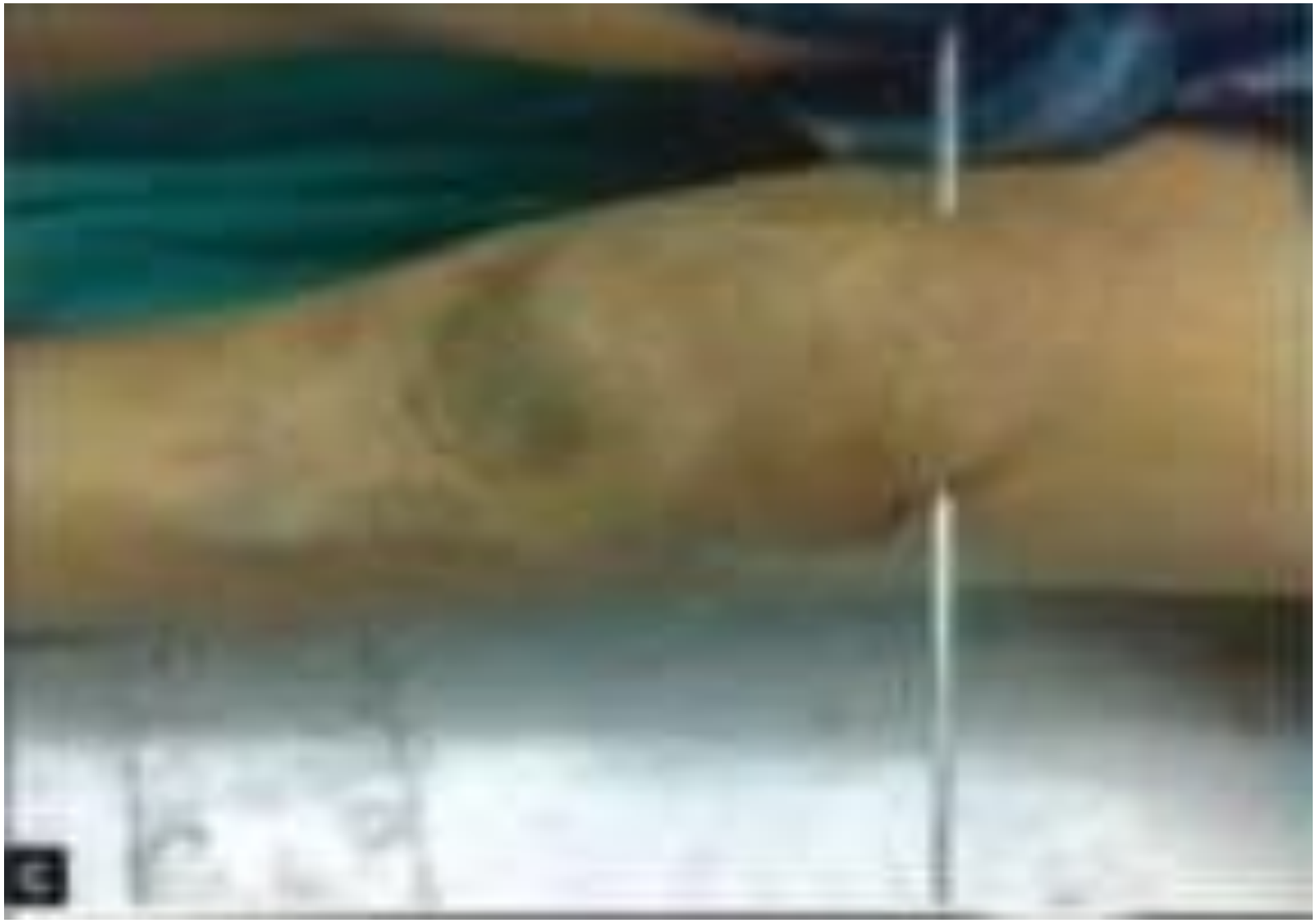
COMPLICATIONS

- Infection
- Cut out
- Distraction at fracture site
- Nerve Injury

Surgical Technique

- Use GA or LA
- Paint the skin with iodine and spirit.
- Mount the pin/wire on the hand drill.
- Hold the limb in same degree of lateral rotation as the normal limb and with ankle at right angles.
- dentify the site of insertion and make a stab wound.

- Hold the pin horizontally
- Apply small dressing around the pins to seal the wound.
- The pin should pass only through skin, SC tissue and bone avoiding muscles and tendons.



MAINTAINING EFFECTIVE TRACTION

- checks the apparatus that the ropes are in the wheel grooves of the pulleys,
- the ropes are not frayed,
- the weights hang free,
- the knots in the rope are tied securely.
- evaluates the patient's position, because slipping down in bed results in in-effective traction

MAINTAINING POSITIONING

maintain alignment of the patient's body in trac-tion avoid footdrop (plantar flexion),
in-ward rotation (inversion), and
outward rotation (eversion).
The patient's foot may be supported in a neutral position by ortho-pedic devices (eg, foot supports)

preventing skin breakdown

- pro-tect the elbows and heels
- inspect pressure areas.
- To encourage movement without using the elbows or heel,
- pressure points are assessed for redness and skin break-down.
- Assess pressure area
- provide back care
- keep the bed dry and free of crumbs and wrinkles..
- use pressure-relieving air-filled or high-density foam mattress to reduce pressure

monitoring neurovascular status

- assesses the neurovascular status of the immobilized ex-tremity at least every hour initially and then every 4 hours.
- instructs the patient to report any changes in sensation or movement.
- The nurse en-courages the patient to do active flexion–extension
- Prompt recognition of a developing neurovascular problem is essential so that corrective measures can be instituted promptly

providing pin site care

- the site is covered with a sterile dressing.
- care of the pin site
- keep the area clean.
- assess the pin site and drainage for signs of infection, such as redness, tenderness, and purulent drainage.

PROMOTING EXERCISE

- Active exercises include flexing and extending the feet, and range-of-motion
- exercises for noninvolved joints.
- Isometric exercises of the immo-bilized extremity

Muscle-Setting Exercises

Isometric contractions of the muscle maintain muscle mass and strength and prevent atrophy.

Quadriceps-Setting Exercise

- Position patient supine with leg extended.
- Instruct patient to push knee back onto the mattress by contracting the anterior thigh muscles.
- Encourage patient to hold the position for 5 to 10 seconds.
- Let patient relax.
- Have the patient repeat the exercise 10 times each hour when awake.

Muscle-Setting Exercises

Gluteal-Setting Exercise

- Position the patient supine with legs extended, if possible.
- Instruct the patient to contract the muscles of the buttocks.
- Encourage the patient to hold the contraction for 5 to 10 seconds.
- Let the patient relax.
- Have the patient repeat the exercise 10 times each hour when awake.