EXPERIENCE IN A TRAUMATIC HEMIPELVECTOMY AND PROSTHETIC MANAGEMENT CASE IN MOSHI, TANZANIA

BY : EUNICE KOMBE

Rare Orthopedic and Trauma Emergency

- JB; F/24YRS Sanawari-Arusha
- Pilon rider in a motorbike
- Motor bike crash/ Run over by a big truck on her left waist and thigh
- The motorbike rider died at the scene
- Brought by Good Samaritans, At EMD with almost zero BP/ PULSE FEABLE/ IN SHOCK++++ 3hours after accident

Post-operative

- Left hemipelvectomy amputation.
- Need for colostomy
- More expertise care with general surgeons and psychological care.
- Referred to Harowin for prosthetic Management

Patient Assessment

Clinical examination conducted

- No preserved gluteus maximus
- Presence of a colostomy
- Weakness on the sound limb with presence adherent scarred tissue

Patient Assessment

- Presence of functional scoliosis
- Significance difference from the distal end of the stump to the contralateral ischial seat
- Pt couldn’t stand for prolonged time

Pre-Casting Exercises

- Ambulation trials and therapies initially were problematic because of poor voluntary motor control
- Sit to stand movements
- Progressive ambulatory protocols

Casting

- Casting a patient while suspended in a sling
- To compress tissues in an upward oblique direction, resulting in a cast of the desired shape

Modification

- "Stump" to carry the loads
- Socket is designed so that the semisolid abdominal mass of the stump is upward and medially toward the somewhat firmer area of the lower rib cage.

Positive Cast Modification

- Some additional support was achieved by utilizing the area of the gluteus maximus on the unaffected side

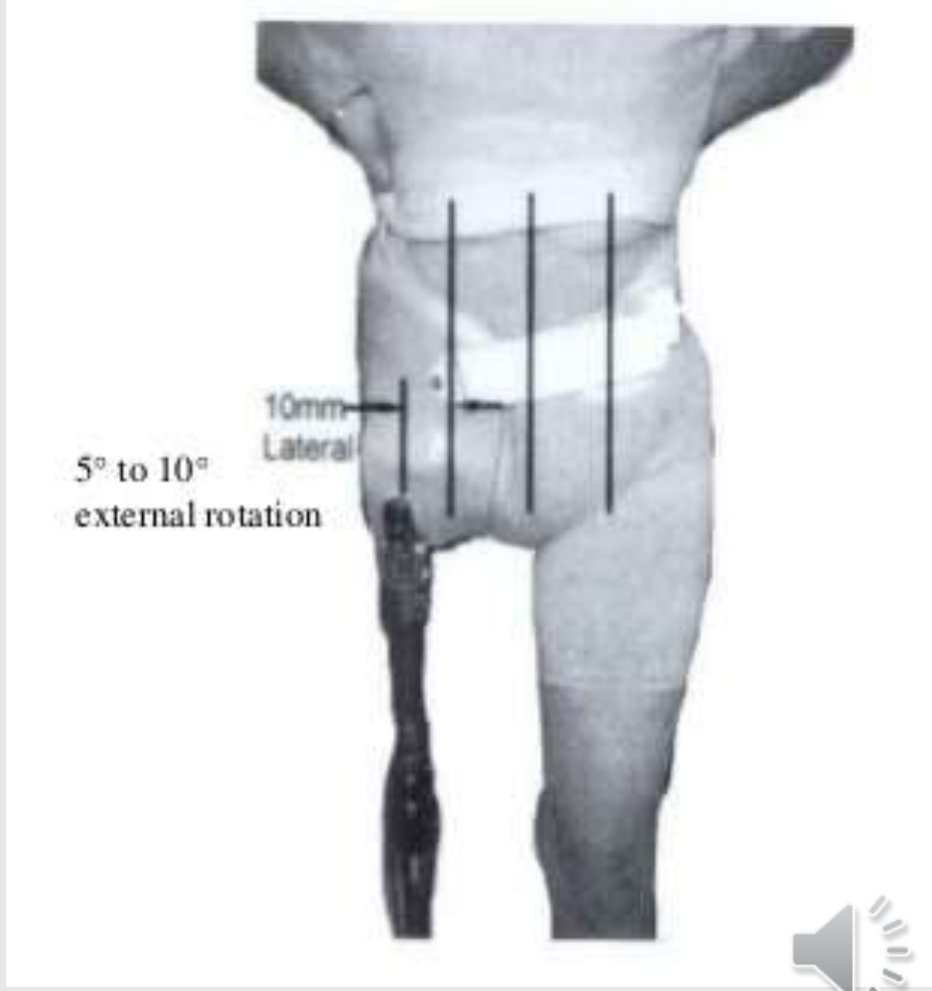
Fabrication

- Wrapped in a soft foam material
- Stump rests on plastazote in the socket
- Buildup of the gluteus maximus on the stump side was done using pedilene foam to form a basis for the attachment of the hip plate.

Positioning of the Hip joint

The hip joint was placed:

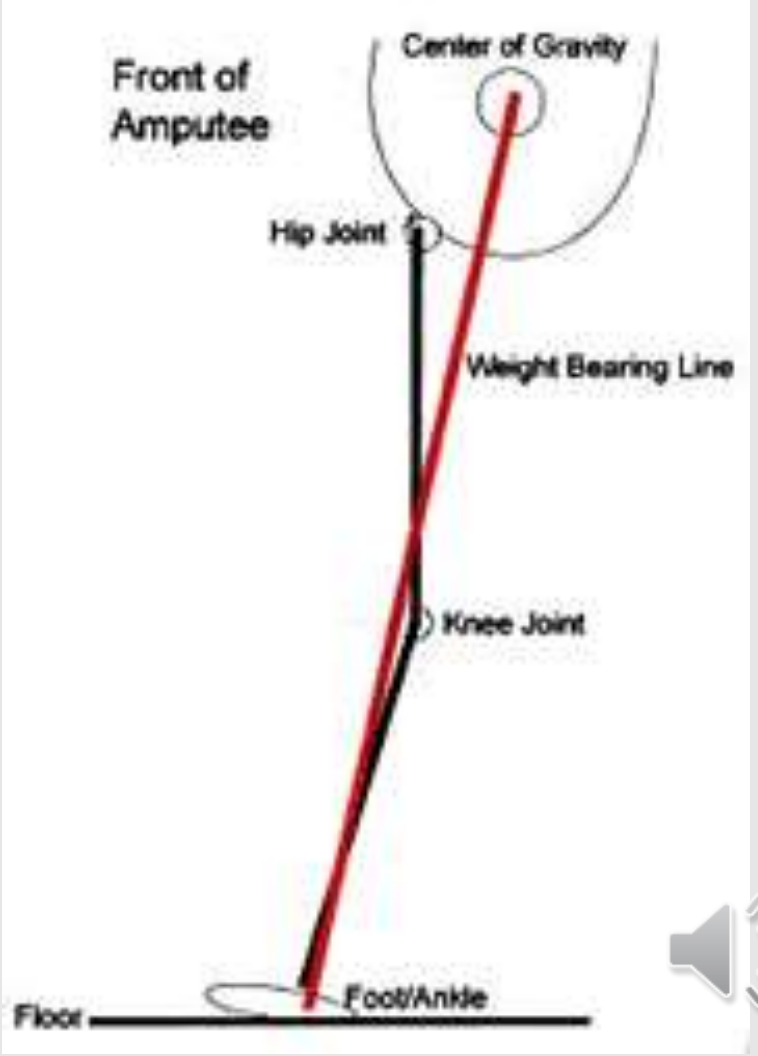
- Laterally to provide adequate clearance in the crotch area
- Forward to ensure adequate stability during the stance phase of walking
- High enough so that the extension stop does not interfere with sitting.



GRF FORCES

The joints are kept stable by the fact that the weight bearing line passes

- Behind the hip joint
- In front of the knee joint during parts of the gait cycle when weight is actually being borne on the prosthesis.



Static Alignment

Dynamic Alignment

CLICK ON THE VIDEO BELOW!!!!!!

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Conclusion

- Proper positioning of limbs in bed and while sitting, sometime with static splinting will help reduce functional scoliosis.
- Conservative isometric and isotonic strengthening exercises
- Appropriate wheelchair size and accessories that enhance postural control and unload weight bearing sites is important.
- Early prosthetic management is vital to attain desired outcomes.

Acknowledgments