

The Intra-Operative Ankle And Foot Support

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Abstract: *We have designed a novel low cost instrument for intraoperative ankle and foot support .This has enabled adequate exposure, enhanced safety, and comfort for both patients and surgeon*

Keywords: *Intra-operative ankle and foot device, surgical positioning, anatomic exposure.*

I. INTRODUCTION

A positioning equipment or device is any piece of equipment used for positioning a patient, and or providing maximum anatomic exposure. The main goal of intra-operative positioning is to promote optimal exposure of the surgical site, provide surgical comfort for both patient and surgeon, and at the same time prevent complications deriving from surgical positioning.

Biomechanical studies have demonstrated that healthcare personnel are at risk of injuries despite the use of proper body mechanics if patient and ling tasks are beyond reasonable limits and the care giver's capabilities³. The combination of frequency, duration, and stress of performing high –risk tasks that push the limits of human capabilitiese. g, lifting heavy loads; sustained, awkward positions; bending and twisting, and standing for long periods of time predisposes perioperative personnel to musculo skeletal disorders⁴

The consequences of improper intraoperative positioning can be profound, it not only may cause substantial morbidity but also may be a major area of litigation ⁵

Surgical approaches to the foot include anterior, lateral, medial, posteromedial, poster lateral, posterior and dorsal web spaces

The Intra-operative ankle and foot support provides an adjustable frame and a three dimensional platform for adequate exposure of all surfaces in ankle and foot procedures.

The adjustable frame ensures that the Surgeon is comfortable, and while being fastened to the operating table by a Velcro belt patient safety is assured.

II. METHOD

The intra operative ankle and foot support was designed and fabricated in our institution in partnership with local metal workers using aluminum and stainless steel.

The patients were positioned after spinal or general anesthesia and routine skin preparation and draping. Two Velcro bands were used to secure the device to the operating table and the surgical procedure was then performed.

III. DISCUSSION AND CONCLUSION

Eight (8) patients with injuries to the feet, and six(6) with congenital talipesquinovara deformities were randomly operated upon by three (3)consultant Orthopaedic surgeons after obtaining informed consent. All the surgeons attest to the comfort, adequacy of exposure and ease of maneuvering around all surfaces of the ankle and foot. All patients recovered without post-operative complications. Randomized trial will be required to study the benefits in other surgical procedures of the ankle and foot.



Figure 1: showing the instrument



Figure 2: Showing instrument packed for storage



Figure 3: Shows patient in supine position

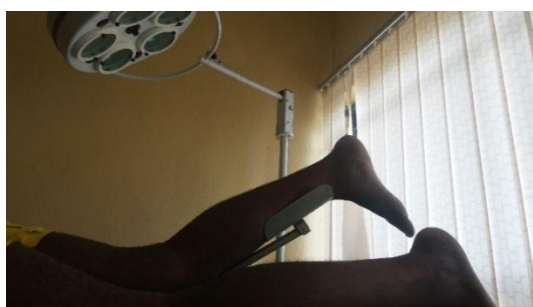


Figure 4: Show a patient in prone position

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DECLARATION OF CONFLICTING INTERESTS:

None declared.