Axillary Nerve Neuropathy Due To Prone Positioning For Spine Surgery

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INTRODUCTION:

Positioning patients for spine surgery is an important aspect for operative site exposure and optimum operating condition. During spine surgery patient are put into prone position, which is not physiologic and could lead to complications. Peripheral nerve neuropathy is a rare complication and only counts 0.03% - 0.1%. We would like to report a rare case of axillary nerve neuropathy post scoliosis corrective surgery.

MATERIALS & METHODS:

Madam R is a 33-year-old woman who presented to us with right-sided lumbar curve scoliosis. On X-ray noted that she has a progressive Cobb's angle from 40° to 60° within a few months. She was planned for PSIF T2 – L3. Preoperatively she did not have any neurological deficit. Intra operatively she was put in prone (superman) position. Surgery was uneventful; she was transferred back to ICU and eventually to the ward. Post-operatively we noted that she has weak abduction of bilateral shoulder with power of 4 and reduced sensation over the regimental patch of bilateral arm.

RESULTS:

She was discharged and subsequently followed up in our clinic. Within 2 month, the axillary nerve neuropathy has completely resolved. Electromyogram and nerve conduction study was not performed due to complete recovery.

DISCUSSIONS:

The axillary nerve is rarely injured and occurrence is 5% in dislocation of shoulder joint, fracture proximal humerus or misplaced injections into the deltoid. In this case, axillary nerve could be injured due to: 1) Ischemia to the nerve – this could be because of general anesthesia, usage of volatile gases and drugs and volatile of blood pressure during the surgery. 2) Stretching – prone position with the shoulder abducted and externally rotated for prolonged duration, this could cause the nerve to be stretched beyond its resting length. 3) Compression – direct compression on the nerve could cause ischemia.

Figure 1: Positioning on spine table.

Figure 2: Arms abducted and externally

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could detect this early and should be recommended for all spine surgery.

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