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Quality Assessment of Shoulder AP X-Rays in Milton Keynes University Hospital.**Anique Ahmed Choudhary***Milton Keynes University Hospital, UK.*

The aim of the study was to assess quality of shoulder AP x-rays done in ED at MKUH, as often times it can be very challenging to get the right angle and positioning in patients with pain who present to ED with shoulder injuries. Shoulder AP in ED helps in assessment of fractures (proximal humerus, clavicle, scapula) and integrity of joints (glenohumeral humeral, Acromioclavicular, sternoclavicular). This was a retrospective study conducted on patients with shoulder injuries who presented to ED from January to March 2021. A total of 306 patient's x-rays were reviewed and compared with an ideal shoulder AP which met the criteria set up by RCR iRefer Guidelines and Clark's Positioning in Radiography. Out of 5 essential characteristics present in an ideal should x-rays, those not having 3 or more were marked as suboptimal. Essentially the plain film should demonstrate these 5 characteristics: 1) The head and proximal end of humerus; 2) The inferior angle of scapula; 3) The whole of clavicle including the sternoclavicular joint; 4) Proper collimation; 5) The head of the humerus seen slightly overlapping glenoid cavity, but separate from acromion process. Out of 306 x-rays, 71 did not meet the criteria, which makes about 25% of the patients having a suboptimal plain film. The identified reasons were: 1) Difficulty in positioning (elderly and frail patients); 2) Wrong use of technical factors (voltage, current, contrast); 3) Poor communication with the patient; 4) Improper collimation; 5) Suboptimal analgesia. For an optimal plain film, these patients would require a repeat x-ray, thus increasing cost, time, and exposure to radiation of some very sensitive organs (thyroid and breast) during shoulder AP x-rays. Although the goal of imaging department should be to deliver high-quality x-ray images, it was observed that in clinical practice it is often challenging for radiographers to obtain x-ray projections of the shoulder that adhere to the established radiographic criteria. Some recommendations made in light of this study are: 1) Extra training and CPD sessions of the team responsible; 2) Provide more support and assistance to elderly and frail patients; 3) Ensure adequate analgesia is given if it is affecting the positioning. These suggestions can be helpfull not just at MKUH but can also be beneficial for other institutes in improving their shoulder AP x-rays.

Biography

Anique Ahmed Choudhary has completed his MBBS from Central Park Medical College Lahore, Pakistan in 2018 and currently working at Milton Keynes University Hospital, UK in Trauma & Orthopaedics as a trust doctor. He has a mojour publication on Posioning Cases in Indo American Journal of Pharmaceutical Sciences and completed 3 audits at his current hospital so far. Milton Keynes University Hospital, UK.

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