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Posterior Thigh Compartment Syndrome Associated with Hamstring Avulsion and Antiplatelet Therapy

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Abstract : Aim of study: Scientific literature is scarce of studies and reviews valuing the pros and cons of the paratricipital approach for the treatment of humeral shaft fractures; the lateral paratricipital approach is a valid alternative to the classical posterior approach to the humeral shaft as it preserves both the triceps muscle and the elbow extensor mechanisms; based on our experience, this retrospective analysis aims at analyzing outcome, risks and benefits of the lateral paratricipital approach for humeral shaft fractures. Methods: Our study includes 14 patients treated between 2018 and 2019 for unilateral humeral shaft fractures: 13 with a B1 or B2 and a patient with a C fracture type (according to the AO/ATO Classification); 6 of our patients identified as male while 8 as female; age average was 57.8 years old (range 21-73 years old). A lateral paratricipital approach was performed on all 14 patients, sparing the triceps muscle by avoiding the olecranon osteotomy and by assessing the integrity and the preservation of the radial nerve; the humeral shaft fracture osteosynthesis was performed by means of plates and screws. After surgery all patients have started elbow functional rehabilitation with acceptable pain management. Post-operative follow-up has been carried out by assessing radiographs, MEPS (Mayo Elbow Performance Score) and DASH (Disability of Arm Shoulder and Hand) functional assessment and ROM of the affected joint. Results: All 14 patients had an optimal post-operative follow-up with an adequate osteosynthesis and functional rehabilitations by entirely preserving the operated elbow joint; the mean elbow ROM was 0-118.6 degree (range of 0-130) while the average MEPS score was 86 (range75-100) and 79.9 for the DASH (range 21.7-86.1). Just 2 patients suffered of temporary radial nerve apraxia, healed in the subsequent follow-ups. CONCLUSION: The lateral paratricipital approach preserve both the integrity of the triceps muscle and the elbow biomechanism but we do strongly recommend additional studies to be carried out to highlight differences between it and the classical posterior approach in treating humeral shaft fractures.

Keywords : paratricepital approach, humerus shaft fracture, posterior approach humeral shaft, paratricipital postero-lateral approach
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