

# THE GOLDEN HOUR IN HIP FRACTURES

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*“The management of hip fractures in the elderly is no longer just a surgical challenge, but a socioeconomic imperative in the 21<sup>st</sup> century.”*

As the demographic profile of our nation shifts towards an aging population, the incidence of fragility fractures, particularly hip fractures, has seen a significant upsurge.<sup>1</sup> This special edition “Hip Fracture in Adults” of the Nepal Orthopedic Association Journal (NOAJ) is dedicated to unraveling the complexities associated with these injuries, focusing on a multi-disciplinary approach that spans from pre-operative optimization to postoperative rehabilitation. The concept of ‘The Golden Hour’ is well established in trauma care.<sup>2</sup> However, in the context of geriatric hip fractures, this window extends to ‘The Golden 48 Hours’.<sup>3</sup> Evidence consistently shows that surgical intervention within this timeframe significantly reduces mortality and improves functional outcomes.<sup>2,3</sup> Yet, achieving this goal in our healthcare settings requires a paradigm shift in how we perceive and treat these patients. In this issue, we present a collection of review articles and clinical perspectives from leading experts. We explore the latest trends in surgical fixation, the role of orthogeriatric units, and the implementation of standardized care pathways.

The importance of anatomical reduction in the neck of femur and stable valgus reduction in the intertrochanteric and subtrochanteric regions must precede choice of fixation devices to allow fracture healing.<sup>4</sup> The neck of femur with its precarious blood supply and synovial fluid bathing is prone to non-union and avascular necrosis.<sup>4,5</sup> The intertrochanteric region heals but owing to cancellous osteoporotic bone is prone to implant cutout or varus malunion, and the subtrochanteric region owing to cortical bone and strong muscle forces is prone to delayed union and varus failure.<sup>6</sup> The usage of bone grafts to provide added biology and fixation augmentation to provide added stability may be considered in cases where delayed union is anticipated.<sup>7</sup>

Very aptly called the “unsolved fracture”, hip fracture poses a challenge that extends far beyond the operating room. Treatment of hip fracture is a socioeconomic burden of epidemic proportions and getting an elderly patient back home and into the community requires considerations of innumerable

variables ranging from expedited surgery, appropriate selection of fixation/replacement, immediate and targeted rehabilitation to prevent complications of recumbency, and a multi-disciplinary approach to achieve these goals.<sup>8</sup> This is a far-cry from our responsibility of producing mere “acceptable x-rays”, we must become leaders of a major paradigm shift in advocating early, expedited, multi-disciplinary care that has shown definite morbidity/mortality advantages for elderly patients presenting with hip fractures. Not only this, risk stratification and treatment of osteoporosis and fall prevention play a crucial role in preventing future fractures.<sup>9</sup> Hence, we must move beyond the narrow focus of the fracture itself and address the holistic needs of the patient. This includes rigorous co-management with geriatricians, anesthesiologists, and physical therapists. Only through such integration, we can truly improve the quality of life for those who have suffered what was once a life-altering injury.

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