

## Surgery for Hip Fracture: How Urgent?

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A quick glance at the most recent publications on the timing of surgery for hip fracture reveals some interesting findings. A review of the most recent 40 papers, 2 of which are studies from Israel, showed that 12 deal with the question of the timing of surgery. So, clearly, the controversy presented in the preceding pages is relevant and important. It is not only the mortality rate following surgery that is important. The quality of life of elderly patients who survive surgery and are expected to return, more or less, to normal daily activity is also a critical issue. The importance of the economic aspects of this controversy also cannot be overemphasized. In addition to the high cost of in-hospital treatment, which varies with the timing of surgery [32], is the cost of management in the community. Shoham et al. [33] reported that an estimated 120 million shekels were spent in Israel in 1998 on the management of these patients in the community. These authors demonstrated a significant difference in the length of hospital stay (7.4 vs. 13.2 days) between Israeli hospitals in which the mean delay to surgery is shorter (about 35 hours after admission) compared to those in which the mean delay is longer (over 100 hours).

The timing of surgery is controversial and relates both to different approaches to this issue in the medical community, and to the lack of adequate resources to operate on every fit patient in the shortest possible time. Orosz and co-workers [34] presented data on the causes of delay in surgical repair of hip fractures in four hospitals in the New York City metropolitan area. The main cause in their series was a delay in medical clearance in 52% of those operated on later than 24 hours after hospital arrival. However, in 29% the delay was caused by the unavailability of an operating room or a surgeon.

The arguments presented by each side of the controversy in this issue are clear and persuasive. This being the case, how can we solve the problem and draw conclusions that will assist emergency room doctors and orthopedic surgeons in their routine clinical work?

Three points may shed light, in my opinion, on this very important issue. The first is the recommendation that fit patients should undergo surgery as quickly as possible. A long series of studies has demonstrated the advantages of an early surgical approach, i.e., within the first 24 hours of hospital admission. These advantages include improved 1 year survival [20], reduced hospital stay [29,34,35], and improved activities of daily living [29].

The second point relates to patients with significant comorbidity and an evident need for preoperative assessment and

preparation. Moran et al. [30] reported that mortality was not increased when surgery was delayed up to 96 hours. The practical approach in these cases is to immediately obtain necessary data, arrange consultations, and adjust the patient's chronic treatment in order to decrease the peri-operative risk to the greatest extent possible. One person should coordinate the management plan. This coordinator could be the orthopedic surgeon, an internal medicine specialist, or an anesthesiologist. By adopting this approach unnecessary delays in the workup can be avoided.

The last point relates to multiple-trauma patients. The presence of head injury or thoracic trauma has been taken to indicate the need for time to stabilize the patient's condition. However, some data indicate the opposite approach. Giannoudis and team [36] published the results of a meta-analysis in which they demonstrated that early fixation of a major bone fracture, in the presence of severe head injury, could improve the postoperative outcome. In addition, a recently published report by Brundage et al. [37] showed that fixation within 24 hours of admission to the hospital was associated, in their series of 1362 patients, with an improved outcome, even in the presence of head and/or chest trauma.

Still, one must bear in mind that the current situation in most Israeli hospitals – i.e., shortage of operating rooms, anesthesiologists and orthopedic surgeons – is likely to prevent early surgery even for fit patients who are ready for the procedure. The fact that Israel is not alone in this situation should not make us complacent and keep us from taking further steps to rectify this unfortunate situation in the near future.

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