## **Fads and Fashion in Orthopedic Surgery**

Melvin P. Rosenwasser, MD

rthopedic surgeons by nature and disposition are energetic, handson physicians who are well trained and credentialed to diagnose and treat musculoskeletal injuries and disease. Experience buttressed by peer-reviewed publications can and does influence surgeon behavior toward new treatment algorithms and technologies. This is how trends in orthopedic surgery begin and spread from the early adopters to the more cautious middle grounders to the diehards who resist change and say, "What ever happened to closed reductions?"

One such pendulum swing in upper extremity trauma is the handling of distal radius fractures. This injury is ubiquitous and increasing in our aging population. Despite the public awareness of osteoporosis, distal radius fractures have been approached, alternatively, from the nihilistic viewpoint that everyone should be treated with a cast, with malunion with function accepted, to the view that volar locked plating should be universally applied for all but the most benign injuries.

Certainly we have learned from the history of fixation of unstable wrist fractures, which has seen the pins and plaster era succeeded by intrafocal

pinning and then by the spanning external fixator. We know that just putting traction across the wrist will not reduce and stabilize critical comminuted fragments or restore congruence, especially to the distal radioulnar joint.1 We have also learned by asking our patients about function, not just perusing their x-rays or measuring their mobility. Outcome instruments like the DASH and SF-36 questionnaires have informed us that restoration of forearm

Dr. Rosenwasser, this journal's Associate Editor for Hand and Wrist, is Robert E. Carroll Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons, and Chief of Hand and Microvascular Surgery, and Chief of Orthopedic Trauma Surgery, Columbia University Medical Center/New York Presbyterian Hospital, New York, New York.

Am J Orthop. 2009;38(4):170, 193. Copyright 2009, Quadrant HealthCom, Inc. All rights reserved.



"We, as orthopedic surgeons, should take the lead in demonstrating the value of our interventions." supination and maintenance of grasp leads to patient satisfaction, not nice x-rays.<sup>2</sup> Thus, when dorsal plating fell out of favor with its extensile approaches and tendon disturbances, the orthopedic world was receptive for a new approach which ushered in the volar locked plating era.<sup>3</sup> This single device swept the orthopedic community, gaining widespread acceptance and enthusiasm that, over a short few years, changed surgeon behavior and almost made external fixation obsolete

This wild pendulum swing was not accompanied by corroborating Level I evidence studies but by case series, and, with the multiplicity of designs and manufacturers, it seemed more a marketing than a scientific argument. The pendulum analogy is apt for this clinical situation as it must inevitably swing back to the middle ground. Indications and functional outcome predictions will be refined to allow us to better select the patients for this intervention. Meta-analyses recently published seek to do just that and clearly demonstrate that external fixation and plating can have equivalent results if the quality of reductions is similar.4-6

Health-care expenditures are being ever scrutinized, and implant costs are a part of this burden. We, as orthopedic surgeons, should take the lead in demonstrating the value of our interventions, thus assuring that we will continue to have our voice as the patient advocate at the governmental table.

Orthopedic surgeons, like anyone, can get excited about the latest and greatest technology, but that doesn't mean that everyone's grandmother needs her distal radius fracture plated. Let's keep fads and fashion on the runways of Paris, Rome, and New York and continue our intellectual pursuit of the best evidence to care for our patients.

(Continued on page 193)

(Continued from page 170)

## **Author's Disclosure Statement**

The author reports no actual or potential conflict of interest in relation to this editorial.

## References

- Bronstein AJ, Trumble TE, Tencer AF. The effects of distal radius fracture malalignment on forearm rotation: a cadaveric study. J Hand Surg Am. 1997;22(2):258-262.
- 2. Chung KC, Kotsis SV, Kim HM. Predictors of functional outcomes after surgical treatment

- of distal radius fractures. *J Hand Surg Am.* 2007;32(1):76-83.
- Grewal R, Perey B, Wilmink M, Stothers K. A randomized prospective study on the treatment of intra-articular distal radius fractures: open reduction and internal fixation with dorsal plating versus mini open reduction, percutaneous fixation, and external fixation. *J Hand Surg Am*. 2005;30(4):764-772.
- Egol K, Walsh M, Tejwani N, McLaurin T, Wynn C, Paksima N. Bridging external fixation and supplementary Kirschner-wire fixation versus volar locked plating for unstable fractures of the distal radius: a randomised, prospective trial.
- J Bone Joint Surg Br. 2008;90(9):1214-1221.
- Margaliot Z, Haase SC, Kotsis SV, Kim HM, Chung KC. A meta-analysis of outcomes of external fixation versus plate osteosynthesis for unstable distal radius fractures. J Hand Surg Am. 2005;30(6):1185-1199.
- Paksima N, Panchal A, Posner MA, Green SM, Mehiman CT, Hiebert R. A meta-analysis of the literature on distal radius fractures: review of 615 articles. *Bull Hosp Jt Dis*. 2004;62(1-2):40-46.
- Kelly MP, Bozic KJ. Cost drivers in total hip arthroplasty: effects of procedure volume and implant selling price. Am J Orthop. 2009;38(1): E1-E4.