

Repair and repeat: Comments on the learning curve for TIP urethroplasty

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Reconstructive surgery, in essence, defines the *artistry* of our specialty. In hypospadias surgery, our realistic modern goals are to construct a perfectly functioning unit physiologically; in today's *market*, it means to make the unit anatomically superior as well, in as few operations as possible. As surgeons, we must employ judgement and knowledge, along with technical expertise. Deschênes Rompré and colleagues illustrate the frustration of overcoming the initial agony of a *learning curve* in their discussion of tubularized incised plate (TIP) urethroplasty or TIPU.¹ TIPU has become a versatile operation to correct most primary hypospadias variants over the last 20 years. I have personally been privileged to have been involved with it since its description for distal and proximal hypospadias.^{2,3}

A fellowship-trained pediatric urologist not only will have completed a full residency, but also a 2-year fellowship under the influence of many supervisors/mentors, who may in turn have used varied techniques to address a given surgical entity. Hypospadias is indeed challenging; over 300 different techniques have been described. Thus upon completion of a fellowship, the newly appointed consultant will have varying experience with hypospadias surgery, which has been affected by degrees of training exposure and personal bias and confidence. Suffice it to say, the technical tools and knowledge are there, but the aforementioned judgement and experience take time in order to minimize the extent of the learning curve.

In Malcolm Gladwell's book *Outliers: the Story of Success*,⁴ he reinforces the concept of the "10 000 hour rule," based on Anders Ericsson's work.⁵ The rule suggests that it takes about 10 000 hours of practicing a specific task to achieve success for that given task. In reality, that amounts to practicing a task roughly 20 hours a week for 10 years, excluding the rare Mozarts and naturally gifted individuals.

Each hypospadias is different, as is each surgeon, and we must tailor each operation to each patient and also to our own innate skill level. Deschênes Rompré and colleagues' initial results with the TIPU for hypospadias must have been indeed humbling. Does one give up if the results of an individual series are less than that stated in the literature, or does one pause and question each outcome in order to improve? Like a sport, such as golf, we don't buy a new driver every time we shank a tee shot... even though we might wish to do so! Thus Gladwell's suggestions point more to the points of repetition, experience, and analysis, of a process, in order to improve and become successful.

It is interesting that as one moves further away from training, we try to simplify our practices. This may amount to refining various parts of a procedure or the way we manage our patients perioperatively. Deschênes Rompré and colleagues point to the evolution in the practice of routinely stenting patients to minimize inconvenience and also the potential for trauma to the reconstructed urethra by less experienced personnel, as opposed to those encountered in training where a fellow was always available to place the catheter.¹ Importantly, the authors also point out that although many complications occur early, with long-term follow-up, it is likely that more issues will come up. Thus, a decade of solo practice with 3 to 4 proximal repairs a year may require longer follow-up to truly evaluate success. David Bloom, a sage pediatric urologist and Chief of urology at University of Michigan, has frequently stated to many young (and for that matter, not so young) urologists: "*Results once bad, never become good. Results once good, may become bad. The harder you look, the worse it becomes!*"

One's memory is never as good as data. In pediatric urology, we have not been very cognizant of our patients' true long-term outcomes as they age and as they move to adult healthcare providers. It is thus incumbent upon us to keep databases on our patients and track them appropriately as they meet each milestone.

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