

What makes a surgeon a great surgeon?

There is a slight animosity between physicians in surgical fields versus those in the nonsurgical specialties. The former reckon that it is only them who are forced to make instant decisions that they must then immediately act upon; the latter think that all that surgeons do is cutting, without much input from the brain. While this last assumption is true for a small number of surgeons, the vast majority of surgeons know that surgery is nothing but a contiguous decision-making process; the role of the hands is simply to execute the decisions the brain makes. However important, dexterity remains secondary in its significance to the brain's decisive role. Expertise and dedication take precedence over experience, although the latter retains its own significance (as the old joke says: chose an older surgeon with new instruments over a younger surgeon with old instruments).

What is it then that distinguishes the average surgeon from a great one?

One needs to read the exceptional article by Wei *et al.*^[1] to find the answer.

Surgeons typically follow a certain routine. The day before surgery, a list is made which contains the names and diagnoses of all those who will be operated on; typically, all the information that is necessary to make educated decisions for the patients is available. The surgeon knows what equipment and materials will be needed during the operation. The surgeon is aware of the capabilities of those who will assist them: the operation is performed in a well-known environment with all the required infrastructure in place. The workload is planned so that exhaustion toward the end of the day will not occur.

Occasionally, one of these components may be missing (i.e., the most ideal tool for the removal of an intraocular foreign body is unavailable). Almost all surgeons are capable of substituting something to compensate in case of such an eventuality.

However, when *none* of these components is present, that is when the surgeon must be a great one to still be able to bring out the most from the situation. This is how the reader must appreciate the article by Wei *et al.*^[1]

Mass casualties require special organization skills, including preparation of the facility for triaging and then the actual treatment. Triaging occurs on two levels: First, in what order will the patients undergo treatment (“who first”, “who last”, “who in-between and in what sequence”, “who at a later time” and “who not at all”)? Second, what type of surgery will have to be performed? While under ideal circumstances primary comprehensive intraocular reconstruction may be chosen (all pathologies from the cornea to the subretinal space

addressed during the initial surgery), if dozens of patients present simultaneously, the surgery must be staged and the intraocular reconstruction performed secondarily.

The surgeon dealing with mass casualties must perform as many operations a day as possible but should also be aware that heroics (quantity) is no substitute for quality. The surgeon's attention span cannot decline toward the end of the day: the last patient must receive the same treatment excellence as the first one did.

The two surgeons (S.N. and T.Q.) who oversaw the treatment of 816 eyes of 777 patients with pellet gun–related ocular injuries deserve tremendous credit and respect for their truly heroic work. The reader of the article by Wei *et al.*^[1] must appreciate that these pellets can cause very severe eye injuries, demonstrated by the fact that 87% of the eyes had no better than counting fingers vision at presentation and 78% of the injuries were open globe.

The surgeons deserve special credit for the extremely low rate of evisceration (as well as foregoing enucleations). Their 0.7% figure is uniquely favorable when one compares it to a study on penetrating injuries—presumably less severe trauma than the spectrum of pellet-related ocular trauma—with a 28% enucleation rate.^[2] It is to the credit of the two surgeons that they did not choose the easy way out of reconstructing the severely injured globes by removing them under the false pretense of “preventing sympathetic ophthalmia”. Every eye surgeon must be aware that not only is sympathetic ophthalmia very rare (and can be effectively treated if recognized early and managed properly) but that the old recommendation of preventing it via “enucleation within two weeks” is not true.^[3]

The surgeons did a remarkable job by performing their primary surgery so early: 88% of the eyes on whom data were available (529) had the wound sutured on the day of admission. This is an astonishing feat in an era when more and more surgeons elect, or are forced, to close a traumatic wound the day after patient presentation as facilities close their door after “normal business hours” so that emergency surgery is unavailable.

The author of this editorial hopes that all readers of the article will do the same as he did: hats off to the surgeons.

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References

1. Wei X, Ang BC, Nazir A, Shah FQ, Qureshi T, Jain A, *et al.* A series of 777 pellet gun ocular injuries over a 4-month period in Kashmir. *Indian J Ophthalmol* 2022;70:3465-9.

2. Smith D, Wrenn K, Stack LB. The epidemiology and diagnosis of penetrating eye injuries. *Acad Emerg Med* 2002;9:209-13.
3. Jordan DR, Dutton J. The ruptured globe, sympathetic ophthalmia, and the 14-day rule. *Ophthalmic Plast Reconstr Surg* 2022;38:315-24.

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Prof. Ferenc Kuhn is the Chairman of the International Society of Ocular Trauma. He was the primary force behind the creation of the Birmingham Eye Trauma Terminology system (BETTs) and the Ocular Trauma Score (OTS). He is a vitreoretinal specialist with ocular traumatology as his primary interest. As recognition for his contributions to the field, the annual award of the American Ophthalmic Trauma Society was named after him. Dr. Kuhn has authored 167 peer-reviewed articles, 165 chapters in 35 books, edited or authored 6 books, and has given over 1950 presentations worldwide. He is an advocate of primary comprehensive reconstruction of the injured eye and the use of prophylactic chorioretinectomy (a surgery he invented) for the prevention of proliferative vitreoretinopathy.