

Commentary: Stress as a parameter for surgeons health – An intimate interplay

Surgery as a branch poses unique challenges as it can be affected by a surgeon's physical and mental health. Ophthalmic surgery poses a unique challenge due to the high dependency on sophisticated machines and surgery at a microscopic level such that even minor alterations to a surgeon's mindset can affect the outcomes of a surgery. Although, stress is not as detrimental as previously believed as it can improve alertness, concentration and focus but stress beyond a certain level can affect the performance of a surgeon. Stress over a prolonged period of time can affect the health of the surgeon in the form of weakened immune status, cardiovascular diseases, and ultimately, causing a burnout.

A study by Chandra T, *et al.*^[1] evaluated the effect of stress levels among trainee surgeons and consultants while performing uncomplicated uneventful cataract surgery and found that every surgeon experiences stress irrespective of their experience but the amount of stress encountered differed depending on the experience level. With advancements in robotic surgery, the detrimental effects of stress on reproducibility of steps even in complicated surgeries may be alleviated. One such advent in technology is the use of Femto-second laser cataract surgery (FLACS). Although FLACS as such does not fall under robotic surgery such as the likes of the da Vinci system,^[2] FLACS allows reproducible corneal incisions with minimal tissue bridges, capsulotomy of adequate size with reproducible geometry and comparatively fewer capsular tears and fragmentation of the nucleus even in harder cataracts while alleviating surgeon stress response such as hand tremors.^[3]

Formal training for management of stress prior to any surgery is an avenue that has been less explored. Sheer number of surgery may not be the only indicator that can mark success as each surgery has its own challenges, even the anticipated uncomplicated ones; while experience does help manage the stressors of surgery allowing a more reproducible outcome. A healthy well-balanced life can reduce the external distractions one might face in their day-to-day life. Inculcation of healthy habits and use of support systems in the place of work and at home may help alleviate external distraction.^[4] An early identification of burnout is of utmost importance as early intervention may help prolong the surgeon's career.

The COVID-19 pandemic has added substantially to the stress of surgeons. Ranging from issues with personal protective equipment, decreased freedom of movement and finally the ultimate stress of contracting the dreaded disease have all acted as external stressors for the surgeons.^[5] Phacoemulsification and vitrectomy surgery are both believed to be aerosol-generating procedures though reliable evidence for the same is yet to be generated. Use of a 2.2-mm tip and viscoelastic devices have said to reduce the visible aerosol.^[6,7]

The study published in this issue of the journal adequately describes the relation between complicated cataract surgery and the effect it has on the physical parameters of the surgeon such as systolic and diastolic blood pressure.^[8] An important limitation of the study was scheduling the complicated cataract surgery in the latter half of the day which alone could not be compensated by 20-minute breaks prior to the surgery. Such complicated surgery may not be required to be posted as the first surgery of the day but may be scheduled in the first half of the day as soon the surgeon develops their rhythm.

Cataract surgery remains as the cornerstone of ophthalmology. With experience, results become more reproducible in ideal situations. Complicated cataract surgery affects the surgeon irrespective of their experience although experience helps mitigate the effects of stress on the surgery.

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