



A Surgeon's “Longevity”

Text by A/Prof Tiong Ho Yee

Until I was asked to contribute an article on retirement for surgeons for *SMA News*, I had honestly not thought about retirement. Although I have made plans to ensure financial security for my twilight years, I had not seriously contemplated the day when I would stop doing surgeries! I am certain that many of my surgical colleagues are like me because we enjoy our surgeries as a form of art and are passionate about serving our patients through this professional skill. Nevertheless, the “arrow” to write this article has made me contemplate this topic after working at the National University Hospital for

22 years. As I approached the big 50, I was increasingly aware that ageing would bring about physical changes, such as long-sightedness (although I was trying to rationalise that my development of long-sightedness this past year was due to watching more shows on Netflix during the COVID-19 pandemic rather than ageing!)

Impact on surgeons

I was interested to find out if ageing impairs a surgeon's performance and if so, can we delay the time for us to retreat from the “surgical world (武林

天下)?” Interestingly, there has been recent research in this area due to the increasing recognition that the entire surgical workforce in the US is really ageing. An article from the *Journal of the American Medical Association* highlighted a couple of large Medicare US studies in 900,000 patients,¹ which found lower mortality when comparing surgeons older than 50 years to those younger, but higher mortality when comparing surgeons older than 60 years to those younger, in coronary artery bypass graft surgery and pancreatectomy. Outcomes for senior surgeons may be better due to wiser decision-making and experience,

which is thought to counterbalance the potential of cognitive and functional decline with age. This was also corroborated by a Canadian study of more than a million patients which found that increasing surgeon age (more than 65 years old) was associated with a decreasing rate of post-operative death, readmission and complications.² I feel that there is no doubt that with age and experience comes the priceless knowledge of when not to operate as opposed to just knowing when and how to operate.

Despite these optimistic reports, there are also anecdotes of elderly surgeons continuing to perform surgery despite age-related impairment in vision strength and dexterity.³ For example, at a major Midwest university hospital in the US, a universally revered mentor of a generation of surgeons never really progressed in his skills from open abdominal surgery to laparoscopic abdominal surgery. He continued to operate, however, including performing operations laparoscopically. This resulted in poor outcomes but no one in the hospital informed him for years! I believe this is in the minority but nevertheless, it is important to have this insight. It is not surprising that, as surgeons, there will be a greater tendency to resist retiring, fearing changes to our routines and the loss of self-esteem. In addition, with the love for our work, surgeons including myself can see ourselves developing a lack of self-awareness as we grow older. So can anything – and what – be done to “age gracefully” in our surgical career?

Ageing gracefully

Human faculties deteriorate with age, but there is a great degree of variability in this process among individuals. I feel it is important therefore to firstly optimise our health from young so that we can maintain our fitness to perform for as long as possible.⁴ It is important to watch our diet and exercise regularly, and maintain our body mass index; this has been shown to not only make us a better surgeon now, but is also likely to increase our surgical longevity. Secondly, we may consider using surgical tools to augment our ageing faculties during surgery; for

example, the da Vinci robotic platform from Intuitive. The enhanced surgical capabilities of robotic-assisted surgery enables increased precision, allowing for delicate cutting and stitching not possible through other minimally invasive techniques. It also provides better vision for surgeons through the use of a three-dimensional camera, which gives them a view ten times better than the human eye (which explains why the share price of Intuitive is rising all the time!).

In Singapore, the da Vinci robotic platform has been in use for more than ten years, and surgeons have utilised its advantages to provide better outcomes to patients. It also enables older surgeons who may be used to conventionally open surgery to adopt minimally invasive surgery readily (refer to above). As I myself transitioned from the laparoscopic kidney surgery approach to robotic kidney surgery over the last ten years, I have found myself being able to perform more complex operations easily, especially since I get to do the whole surgery sitting down (certainly a plus as I grow older)! As the director of kidney surgery at the National University Hospital, utilising robotic surgery has enabled me to provide optimal outcomes for increasing volumes of partial nephrectomy as it becomes the mainstay treatment for kidney cancer.⁵ Over the next few years, more robotic surgical platforms are coming to the market, from medical technology companies like Medtronic, Ethicon and even Google. This will hopefully bring down the cost of robotic surgery and enable more surgeons and patients to enjoy its advantages.

Lastly, it is important to acknowledge that ultimately, age will catch up with us, and it is important to plan for a surgical career without the surgery. A periodic self-evaluation or a comprehensive, multidisciplinary and objective evaluation by the hospital could be conducted to evaluate the competency of ageing surgeons (though the latter may be controversial). Education, mentoring and research career paths can be considered for surgeons who can no longer practise clinically. It is important to develop this early so that it can be a potential way to

retire from surgical practice gracefully. Professional guidance for retirement planning could be provided earlier for ageing surgeons to help them be meaningfully engaged post-clinical practice. ♦

References

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