Are senior citizen cardiac surgeons improving outcomes?

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To the Editor,

I read the editorial in the November, 2020, issue of *Indian Journal of Thoracic and Cardiovascular Surgery (IJTCVS)*, “Advancing age in medicine- bane or boon?” with trepidation bordering on alarm [1].

We know that both technical and non-technical skills (NTS) affect surgical outcomes.

Cardiac surgery is getting more complex with sicker patients, newer techniques, and complicated devices. This requires the surgeon to constantly learn and imbibe these changes. Learning these new technical skills and psychomotor skills require cognition, integration, and automation. Technical motor skills required are dexterity like fine finger movements, arm wrist speed and aiming, strength both static and dynamic, flexibility, and balance. All these are impaired with age because of mild cognitive impairment (MCI) together with arthritic changes.

NTS consist of situational awareness, communication, and decision-making, together with team work, leadership, and stress/fatigue management. Cognitive decline negatively affects the first three, which are critical NTS and so will result in poor outcomes. The last three may improve with advancing age.

The prevalence of cognitive impairment or MCI in India is not adequately studied. Patel found 25% prevalence in Gujarat in age group 50+ years [2]. Mohan found a prevalence of 26% of MCI in Kerala in population of 60+ years [3]. This is high. Would a quarter of cardiac surgeons in India, who are 50 years and above, have cognitive impairment? What would be the average age of chief operating cardiac surgeon in the cardiac surgery departments across the country?

MCI is recognized by forgetfulness for names and terminology, which impairs effective communication; impaired

short-term memory that is critical to learning and situational awareness; and imbalance which is critical to spatial orientation, coordination, and aiming ability.

With the present trend of medical students shunning cardiac surgery courses, we will be saddled with only aged surgeons in the department with dwindling outcomes. I should think that a 6-year, post Bachelor of Medicine and Bachelor of Surgery (MBBS) integrated cardiothoracic and vascular surgery (CTVS) course with a restructured course material, leading to specialization in adult or pediatric cardiac surgery or thoracic or vascular surgery at the end of the course, would attract youngsters.

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Declarations

Conflicts of Interest Nil.

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