

Editorial

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Achieving Self-reliance in Providing Vital Medical Service in the Current Turmoil: Corneal Transplantation

One of the bitter moments that we experienced initially as a nation in facing the current pandemic was the inadequacy of our health care system to be self-reliant in handling the public health care crisis. These shortcomings can be seen through the shortage of medical supplies and insufficient biotechnological equipment to diagnose and manage COVID-19 cases. Malaysia is not the only nation facing this crisis. The modest state of our medical industries combined with lack of cutting edge scientific and technological advancements has led us to become dependent on external resources and solution.

Malaysia has been navigating through these trying times comparatively better as a developing nation. Even with minimal resources, Malaysia was able to handle the COVID 19 crisis well because of the ability of the stakeholders to work together and cohesively to combat this unruly situation. However, the current global outbreak has exposed the frailties of certain existing critical medical services such as the corneal transplantation which is highly dependent on foreign support.

Corneal opacity blindness is a significant universal public health challenge. It is estimated to have affected about 1.5 million patients worldwide and globally contributes to about 4% of cases of blindness.¹ Blindness from corneal opacity is a reversible condition whereby corneal transplantation is an effective treatment of choice for many patients with corneal disorder. Significant numbers of corneal transplant surgeries resulted in high accomplishment rates in restoring vision. However, there is still a critical shortage of donor corneas accessible internationally for transplantation, with the number of patients in need of corneal transplant is far greater the number of cornea tissues available.²

Malaysia is currently ranked at 77th globally behind Palestine and Nepal in terms of the rate of corneal transplantation performed per capita². A major limiting factor in performing corneal transplants is the availability of donor tissue. Most of the corneal transplant surgeries performed in Malaysia used donor tissues that were made available from Eye Banks in the United States of America (US) and a few corneal tissues came from Sri Lanka and Nepal Eye Banks.

Even prior to the pandemic, global survey showed that there was only one cornea available for every seventy that were needed for corneal transplantation patients. Due to medical, financial and logistical reasons during this pandemic, there is a reduction of 24% to 29% in donors as reported by the Eye Bank Association of America (EBAA). This has resulted in a sharp drop in the amount of tissue being distributed for corneal transplantation internationally to 34% and 27% of the pre-pandemic in June and July 2020 respectively³. This adversely affected the already low rate of corneal transplantation performed in Malaysia which is highly dependent on the corneal tissue supply from the US. The 2020th Malaysia National Transplant Registry report is yet to be made available publicly but from personal communication with corneal surgeons around the country especially from public based hospitals, it is expected that the number will be significantly lower than previous years.

This long and ongoing crisis of tissue scarcity has been discussed extensively. Multiple studies have been published locally investigating the effect on the rate of organ and corneal transplantation cases. Several strategies from different stakeholders have been outlined and planned to enhance local corneal surgeon training programme, increase the supply of donor corneas for transplantation using domestically recovered tissue and to

improve the number of imported corneal tissues. For the past ten years, marked improvements have been observed in the area of corneal transplant surgical training—and the number of local tissues procurement⁴. As a nation we have been embracing and experiencing technological advancement but it is disconcerting that we are still behind the less developed nations with regards to corneal transplantation rate.

Undoubtedly, there is a strong socio-cultural resistance from the Muslim majority population who often cited religious reasons inaccurately as an excuse to circumvent the local corneal recovery effort. Although there are few successful corneal donor programmes in other Asian countries like Sri Lanka and India, their models and strategies cannot be successfully replicated if serious effort is not made to change the current views held by majority of the population in this country. Due to the ethno-religious nature of this issue, which is deepened and compounded by skewed beliefs, active participation from clinicians of the same race and faith has become a necessity to ensure the success of our local corneal tissue retrieval programme.

As stated earlier, bitter experience is valuable in assisting and guiding us to take the next necessary action in dealing with the crisis at hand. Despite multiple scholarly discussions and a number of circulated discourses to address, investigate and highlight the issue of low rate of corneal transplantation in Malaysia, active participation of a wider population of clinicians is very much needed to address this incorrect credence among majority of the population. Realizing this, the IIUM Corneal Transplantation Programme has been drafted specifically to work on this issue. However, like many other previous efforts, it looks like it needs a miracle to make it work.

Nevertheless, quoting Douglas Pederson, the Philadelphia Eagles American Football coach “An individual can make a difference, but a team can make a

miracle”. If there is a single lesson that can be learned from this pandemic, in order to achieve self-reliance in providing vital medical services in handling crisis, it must be a collective team effort that consist of noble individuals who are committed to serve in the best interest of others. With reference to corneal transplantation and corneal retrieval programme in Malaysia, it does need a boost of active participation especially from committed clinicians who share similar background as majority of the population. Combination of a correctly driven policy and the courage of responsible persons to do the right thing have proven to be the much-needed factors for a nation to manage the public medical crisis well. It is the guided valor after all that is crucial in achieving a self-reliant status in providing vital health care service such as corneal transplantation.

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