

EDITORIAL FOCUS ON BURNS

Burn care and the plastic surgeon

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Keywords: burns, plastic surgery, surgeons, Australia

Submitted: 2023 March 3 AEST Accepted: 2023 March 3 AEST

DOI: 10.34239/ajops.71281

Australasian Journal of Plastic Surgery

Vol 6, Issue 1, 2023 | 29 March 2023 AEST

Over the years generations of plastic surgeons have asked the question, ‘Will plastic surgery exist as a specialty in the future?’¹ As plastic surgeons we unashamedly have an interesting and varied scope of practice, and it is only natural for other surgeons to have an interest in what we do and ask the question, ‘Could I do that?’ Other specialty surgeons take on training and acquire skills to reconstruct many of their own surgical defects, thus potentially reducing the need for the plastic surgeon. This has certainly been the case in many areas of our specialty (for example, head and neck, breast) where some patients have reconstructions performed by non-plastic surgeons. But what about burns? Are other surgical specialties as keen to get involved in the care of patients with burns?

As a plastic surgeon wearing a plastic surgery and a burns hat I am often asked how the two areas of burns and plastic surgery relate to each other. Could burns move sideways for others to do the work? I think after a bit of time in the job I have a few of the answers.

However, before we delve deeper into the relationship between plastic surgery and burn surgery we must first acknowledge that other surgical specialties are involved in burn surgery in this country (and overseas). While the majority of burn surgery in Australia is performed by specialist plastic surgeons, there are general surgeons and paediatric surgeons also providing burn surgery.² And this brings me to the first of many positives associated with working in burns as a plastic surgeon in Australia. Each of the surgical specialties (plastic surgery, general surgery, paediatric surgery) bring expertise and experience from their other clinical work to the burns multi-disciplinary team (MDT). Our patients definitely

benefit from many different minds working together from different backgrounds, but perhaps more importantly we surgeons benefit from working with other surgical specialties (just as we do across other areas of plastic surgery). We enrich ourselves in the thinking of the paediatric surgeon, the trauma surgeon, and the general surgeon as we go about looking after our burns patients (but also our other patients too). And with our network of burns units working collaboratively with each other across our states and territories, we are all benefactors of the heterogeneous mix of surgical expertise provided across the burns subspecialty.

But back to the importance of keeping a strong plastic surgery presence in burn surgery, and indeed keeping burn surgery at the forefront of what we do in plastic surgery. As someone who works across the two areas, I’m quite often consulted for a plastic surgery condition that will benefit from the holistic ‘burns MDT approach.’ This may be a large exuding wound, a necrotising

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fasciitis defect, or other conditions that need a team effort to get them substantially healed. It may be a nutritionally deplete patient, a patient with significant psychosocial trauma, or even a patient that needs palliative care. A 'burns MDT approach' in dealing with these difficult problems brings huge benefits to our plastic surgery patients, and is one of the great blessings of burns and plastic surgery working as one. And while patients benefit tremendously from this cross-pollination from burns to plastic surgery, the opposite is also true. Some burns patients benefit from those of us regularly looking after composite tissue loss in our plastic surgery patients and requiring the full 'reconstructive toolbox' of locoregional, perforator and free flaps. General surgeons and paediatric surgeons working in burns know that they can call on their plastic surgery colleagues for assistance and collaboration in flaps and other procedures where the expertise lies with the plastic surgeon. It is a privilege to be able to cross-pollinate from one area of our specialty to another knowing that first and foremost the patient benefits. But there are other benefits too—our training registrars, nursing staff, allied health and other team members gain from these important interactions between the two parts of our specialty.

For many decades Australian plastic surgeons working in burns have been at the forefront of technological advances in wound care, wound regeneration, and reconstruction. These advances have benefited not only burns patients but plastic surgery patients too. ReCell (manufactured by Avita Medical in Valencia, California, USA) non-cultured autologous cell suspensions were first applied in burns to facilitate wound healing and improve scar outcomes by Perth plastic surgeon Fiona Wood.³ The same technology is now used in plastic surgery units in Australia and around the world to improve wound healing outcomes in other non-burn wounds.⁴

Dermal substitutes have traditionally been developed for burn wound coverage, but have also migrated across the subspecialties and have found a place in the reconstruction of plastic surgery soft tissue trauma and tumour reconstruction. Biodegradable temporising matrix (BTM) is the latest dermal substitute to successfully make its way from burns to plastic surgery, having first been developed by Adelaide plastic surgeon John Greenwood.⁵

The close-knit community of burns surgeons has allowed for important developments to be made in the collection of burns epidemiological data, audit and research. The Burn Registry of Australia and New Zealand (BRANZ) provides us with the most accurate burns data in the world.⁶ By working closely alongside plastic surgery our burns data can inspire and help us to develop similar national databases across plastic and reconstructive surgery. This is essential for benchmarking standards in plastic surgery and how we compare with each other. National or bi-national databases are also important for our comparison with overseas plastic surgery care.

As part of the ongoing training of plastic surgeons in Australia, the Australian Society of Plastic Surgeons (ASPS) requires all surgical and education training (SET) registrars to have completed an emergency management of severe burns (EMSB) course prior to finishing their plastic surgery training. This sits alongside compulsory burns terms during the SET years to ensure a basic level of knowledge and skill for all plastic surgeons in Australia with the FRACS (Plast) qualification. This is important in that it demonstrates that ASPS and the Australian and New Zealand Burn Association (ANZBA) are collegiate and engaged in the constant improving of burn care standards across the country. The benefit to burns patients has greater impact, as having all specialist plastic surgeons in Australia with the EMSB knowledge allows them to advocate and lead in the early management of any burns patient.

So, are other specialties snapping at the heels of plastic surgeons to deliver burn care in Australia? With the exception of the general surgeons and paediatric surgeons (who, as I have written, provide positive variation at the surgical level), I do not see plastic surgery losing burns. Moreover, plastic surgery will remain the strong surgical specialty that it is because of our strong ownership of burns and what it helps us deliver across plastic and reconstructive surgery. The relationship between burns and plastic surgery remains synergistic and strong, and I look forward to ongoing comradery, affiliation and growth as we move through the next decade. Burn care and the plastic surgeon is alive and well.

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