S Afr J Surg. 2023;61:245-246. Online first
https://doi.org/10.36303/SAJS.4195

S Afr J Surg
ISSN 038-2361

GUEST EDITORIAL

The South African way of trauma surgery

DL Clarke

Department of Surgery, University of KwaZulu-Natal and Department of Surgery, University of the Witwatersrand, South Africa

Corresponding author, email: *damianclar@gmail.com*

South Africa is a dynamic and boisterous country with a rich history. However, in the daily noise and bustle of our existence, we often fail to appreciate our history and overlook its significance and relevance. The military historians Evert Kleynhans and David Katz recently published a book describing twenty battles fought by South African forces over the last century.[1] In this book, they identify a unique South African way of warfare which has evolved in response to our unique historical and geographic situation. The merging of the Boer way of mobile "commando" warfare and the more formal British army approach to warfare by Jan Smuts and Louis Botha, created a unique military doctrine which emphasised mobility and encirclement rather than frontal attacks. It has taken historians such as Kleynhans and Katz to identify and elucidate this approach. The same applies to our rugby heritage, with Rassie Erasmus being perhaps the foremost proponent of a very effective and successful quintessentially South African approach to the game.[2]

Our surgical history and approach are also unique and something to be celebrated. The geo-political environment in South Africa has created a distinctive surgical milieu. South Africa with its feet in both the developed and developing world, has unique surgical challenges and opportunities. In response, we have developed innovative strategies and approaches. The combination of large volumes of patients with advanced disease and limited but not prohibited access to modern care and technology resulted in the adoption of selective, non-operative approaches to trauma. This has already been well documented.

The development of modern universities, like the University of Cape Town, University of the Witwatersrand and the former University of Natal and their attachment to large government-administered teaching hospitals, such as Groote Schuur, Baragwanath and King Edward VIII created a unique setting. Here, dynamic and innovative surgeons could train and perfect approaches to care for common diseases, which were increasingly rare in more developed countries. This was exemplified by Chris Barnard performing the first heart transplant in Groote Schuur in 1967 and the subsequent media acclaim.[3,4]

The story of trauma care is no less spectacular.[5] This article, which focuses on the development of a single very important unit, documents part of the story of trauma care. The Johannesburg Trauma Unit has cemented its reputation as a centre of innovation and excellence in trauma care. It has led the way in the development of a trauma systems approach and, together with its sister hospital, Baragwanath, has made an indelible contribution to trauma care in South Africa and the world. It has advanced the unique South African approach to trauma care internationally. As such, this overview is timely and necessary. We all congratulate the JHB Trauma Unit on this milestone.

Other regions in South Africa have also contributed to developing this unique South African approach to trauma care. Regional variations have resulted in slightly different approaches to the same problem. The old University of Natal Medical School was based at King Edward VIII Hospital in Congella in Durban. This hospital served a huge volume of patients and was the only hospital in Durban that catered to African patients for many years. It was perennially underfunded and oversubscribed. As Professor Robbs describes it that when he first arrived at the institution, he thought it resembled Dante's inferno. Patients were housed on floor beds throughout the hospital. Surgical intakes in the seventies and eighties were overwhelmingly trauma intakes. Staff had hardly any time to rest or eat, and there were always critically injured patients needing urgent attention.

Out of this cauldron, a group of innovative surgeons like Lynne Baker, Bunny Angorn, John Robbs, Maurice Hegarty, David Muckart, and Sandie Thomson developed and propagated the philosophy of selective non-operative management of trauma. They went on to apply this to numerous injuries. This was very similar to the experience at Baragwanath hospital during the same era, which was documented by Stein, Demetriades and Rabinowitz, amongst others. In fact, Stein's publications on selective non-operative management were contemporaneous with the work of Shaftan in the United States.[5-7]

This adoption of non-operative management was also taken up at hospitals like Edendale in Pietermaritzburg during this era.[8] During the same era in Durban, a nascent emergency rescue service was begun by John Keenan, Stewart Boyd, Alan White, and George Dimopolous. These doctors realised the importance of an effective retrieval service and pioneered Emergency Medical Response Service (ERMS) in the province. This was further enhanced when Advanced Trauma Life Support (ATLS) was brought into the country in 1992 by, amongst others, Professor Lynne Baker.

Since the turn of the millennium, trauma care has continued to develop in the country. The trauma unit at Groote Schuur has published extensively and developed an enviable reputation as a training centre of excellence. Trauma care

has now been taken into the surrounding areas of Cape Town with the opening of the Mitchells Plain Hospital. In Pietermaritzburg, the development of a city-wide trauma service has been led by the Pietermaritzburg Metropolitan Trauma Service. In Durban, the Level One Trauma Unit at IALCH provides quaternary care for the province.

There is a unique South African way of war, rugby and trauma care. It is important that we record and appreciate this history. South Africa is a country which has a great deal to offer the world in terms of insight, experience and solutions to complex challenges. We need to be proud of this heritage and to nurture and propagate it.

ORCID

DL Clarke https://orcid.org/0000-0002-8467-1455

REFERENCES

1. Kleynhans E, Katz DB. 20 Battles: Searching for a South African Way of War 1913-2013. 1st ed. Jonathan Ball Publishers. 2023.
2. History of the South African national rugby union team. Available from: https://en.wikipedia.org/wiki/History_of_the_South_Africa_national_rugby_union_team.
3. Barnard CN. The operation. A human cardiac transplant: an interim report of a successful operation performed at Groote Schuur Hospital, Cape Town. S Afr Med J. 1967;41(48):1271-4.
4. Brink JG, Cooper DK. Heart transplantation: the contributions of Christiaan Barnard and the University of Cape Town/ Groote Schuur Hospital. World J Surg. 2005;29(8):953-61. https://doi.org/10.1007/s00268-005-0154-2.
5. Clarke DL, Thomson SR, Madiba TE, Muckart DJ. Selective conservatism in trauma management: a South African contribution. World J Surg 2005;29:962-965. https://doi.org/10.1007/s00268-005-0131-9.
6. Stein A, Seaward PD. Penetrating wounds of the neck. J Trauma. 1967;7(2):238-47. https://doi.org/10.1097/00005373-196703000-00006.
7. Stein A, Lissoos I. Selective management of penetrating wounds of the abdomen. J Trauma. 1968;8(6):1014-25. https://doi.org/10.1097/00005373-196811000-00003.
8. Hendry DT. The approach to “stab abdomen” at Edendale Hospital. S Afr Med J. 1972;46(45):1719-20.