

## Present state of Vascular Surgery in Pakistan

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Vascular surgery is still struggling to establish as a speciality in Pakistan. There are only a few centres in main cities of Pakistan where vascular surgery is practiced as a separate speciality and the number of trained vascular surgeons is also very limited. Most of these centres are either in military or private hospitals. Vascular surgery was recognised by College of Physicians and Surgeons CPSP as a second fellowship in 2015 and at present there are only 7 recognised centres with 10-11 supervisors. CPSP has held the fellowship, FCPS vascular surgery, exam since 2019 and there is now an addition of around 25 – 30 FCPS vascular surgery consultants who are in their early post fellowship years. Most of them are working in Pakistan while some have gone abroad for job or further training. Those working in Pakistan are also struggling to find a vascular setup to work in.

Pakistani population stands at fifth in the world but in comparison to its neighbours to the east, Pakistanis have a lower average lifespan (men, 67 years; women, 69 years) with high incidence of cardiovascular disease. According to the 2019 Global Burden of Disease study, the estimated age-standardized incidence of CVD in Pakistan was 918.18 per 100 000 (global, 684.33 per 100 000) and the age-standardized death rate was 357.88 per 100 000 (global, 239.85 per 100 000)<sup>1,2</sup>. This is expected to increase in foreseeable future related to high incidence of diabetes (30.8%), hypertension (37%) and smoking (25% of adult males)<sup>2</sup>.

Presentation of vascular disease in Pakistan is not limited to trauma or diabetic foot disease only. The burden of vascular trauma is high and in the absence of vascular units, it is managed mainly by general, cardiothoracic or orthopaedic surgeons. The delay in presentation to vascular unit increases the morbidity and mortality in these patients<sup>3,4,5,6</sup>. High incidence of poorly managed diabetic foot disease results in high rate of limb loss<sup>3</sup>. There is a high incidence of end stage renal disease with studies estimating a rate of 152 per million largely involving younger age groups<sup>7</sup>. These patients require simple and complex vascular access for dialysis. Peripheral vascular disease, carotid artery disease and aortic disease in the form of occlusion or aneurysm is also high which can only be managed by trained and experienced vascular surgeons in specialised centres who can offer both open and endovascular options<sup>8,9</sup>. These centres should also ensure regular reporting of their results to ensure that they are following international standards.

An important step in management of vascular disease is primary prevention. Vascular disease burden increases with increase in risk factors namely diabetes, hypertension,

hyperlipidaemia and smoking. Due to low per capita spending per person on health care, there is lack of primary health care in Pakistan and preventive healthcare depends on a good primary health care setup<sup>10</sup>.

The need of the hour is to work towards providing people access to vascular units across the country. This requires acceptance by the government of the lack of vascular units in major public sector hospitals followed by creation of vascular units with provision of open and endovascular facilities. At the same time there should be development of registries to report vascular diseases and outcomes of management. Society of vascular surgery of Pakistan can play an important role in helping work this out.

### REFERENCES

1. Global Burden of Disease Collaborative Network. *Global Burden of Disease Study 2019 (GBD 2019) Reference Life Table*. Institute for Health Metrics and Evaluation, 2021. doi: 10.6069/1D4Y-YQ37
2. Z Sarmad, B Hanif. Cardiovascular Diseases in Pakistan: Imagining a postpandemic, post conflict future. *CircVolume* 147, Number 17, 1261-63
3. Z Rehman, Z Sohpie. Vascular surgery in Pakistan: critical issues. *Journal of the College of Physicians and Surgeons Pakistan* 2014, Vol. 24 (6): 381-382
4. FT Berlas, · F Salahuddin, · A Mumtaz, · R Ali, · N Rajpar. An Audit of Vascular Trauma Cases in a Tertiary-Level Hospital in Pakistan. *Volume 68, Issue 5, Supplement e152 November 2018*
5. Khan, F.H., Yousuf, K.M. & Bagwani, A.R. Vascular injuries of the extremities are a major challenge in a third world country. *J Trauma Manage Outcomes* 9, 5 (2015).
6. M Ullah, S Niaz, A Ali, Arsalan. An Experience of Surgical Management of Peripheral Vascular Injuries at Pakistan Institute of Medical Sciences, Islamabad. *Journal of Islamabad Medical & Dental College*. 2020;Sep(9)
7. Jha V. Current status of end-stage renal disease care in India and Pakistan. *Kidney International Supplements*. 2013;3(2):157–60.
8. M Khan, H Khan, U Choudry, T Kazmi, A Amin, A Syed. Carotid Endarterectomy: A Single Institutional Experience of 28 Years From Pakistan. *Annals of Vascular Surgery*. 73. 10.1016/j.avsg.2020.12.059.
9. I Khatri, S Shah, A Rana, F Usman, A Ahmad, W Ahmed. Carotid artery stenting in high risk patients - Results of first twelve patients at Shifa International Hospital, Islamabad, Pakistan. *JPMA. The Journal of the Pakistan Medical Association*. 58. 370-4.
10. Khan SJ, Asif M, Aslam S, Khan WJ, Hamza SA. Pakistan's Healthcare System: A Review of Major Challenges and the First Comprehensive Universal Health Coverage Initiative. *Cureus*. 2023 Sep 4;15(9):e44641.

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