

## **MICROSURGICAL SKILLS IN ARTERIOVENOUS FISTULA CREATION IN SARAWAK DURING COVID**

Nurhasyima MN<sup>1</sup>, Aishah A<sup>1</sup>, Muna Fahima Z<sup>1</sup>, Jia Yuan Lee<sup>1</sup>, Daphne Dewi SK<sup>1</sup>, Koh Siang Chai<sup>1</sup>, Ragnild R<sup>1</sup>

<sup>1</sup> Department of Plastic and Reconstructive Surgery, Sarawak General Hospital, Kuching, Malaysia

The incidence rate of end stage renal disease (ESRD) requiring dialysis in Malaysia is 216 per million population in year 2016, double the amount from year 2002. Arteriovenous fistula (AVF) creation is the most preferred vascular access for haemodialysis compared to internal catheter insertion with lower rate of catheter related blood stream infection and thrombosis. In Sarawak, AVF creation is mainly done by the plastic surgeons, vascular surgeon and urology surgical team to ease the high volume cases per year. This paper detailed the microsurgical technique and AVF creation services provided by the plastic surgeons in Sarawak from year 2019-2022. All AVF creations are performed under local anaesthesia. Soft tissue handling, dissection and microanastomosis with micro sutures are performed under loupe or microscope. A retrospective data has been collected from the operative data done by plastic surgeons in Sarawak including the extended services in various district such as Bintulu, Miri, Sibul, Sri Aman, Sarikei, Kapit, Limbang and Lawas. A total of 1543 cases of AVF creation were done by Plastic surgeons in Sarawak, with most of the cases performed in Hospital Sibul, 45% (n=688), followed by Sarawak general hospital, 23% (n=360), Hospital Miri, 11% (n=172) and Hospital Bintulu, 9% (n=137). Smaller district such as Lawas has the least case performed, 0.6% (n=9). More data is needed for the long term outcome and radiological intervention for the patients post AVF creation. The outreach visiting services done by Plastic Surgeons in Sarawak reduced the financial burden of the patients with ESRD and allow better accessibility of the AVF services, more so during Covid time with the closure of interdistrict borders and the country Brunei, affecting the patients logistically.