

**SRHSB/INTEGRA TRAVELLING FELLOWSHIP:**  
**PAEDIATRIC NEUROSURGERY IN KERALA, INDIA**

Mr Ashwin Kumaria, FRCS(SN), FEBNS  
Senior Fellow in Neurosurgery, National Hospital for Neurology and Neurosurgery, Queen Square,  
London, UK

Brain tumours in children are frequently associated with hydrocephalus. This may either be obstructive hydrocephalus – when the tumour and associated mass effect blocks CSF pathways, or communicating hydrocephalus – when hydrocephalus exists despite successful tumour resection.

The risk of long-term hydrocephalus in children after tumour resection, as reported in the literature, is of the order of 15-30%. I performed a retrospective study to evaluate the same in 125 consecutive cases at my previous hospital (Queen's Medical Centre, Nottingham, UK) and had found our rate of persisting, long-term hydrocephalus in this group to be 44%.

To learn more about how to mitigate this risk, I undertook a travelling fellowship, generously funded by Integra and the Society of Research into Hydrocephalus and Spina Bifida at the Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST) in Kerala, India. The Department of Neurosurgery at SCTIMST is a high volume neurosurgical centre that provides a tertiary, national and international referral service for various advanced neurosurgical conditions.

The main purpose of my visit was to learn more about the management of brain tumours in children, especially details of surgical and peri-operative strategies, because their rates of post-operative hydrocephalus are low. Over a two week period (Jan-Feb 2024), I participated in 44 neurosurgical operations, including 7 operations to resect paediatric brain tumours.

I learned several valuable lessons in paediatric brain tumour surgery, which may seek to reduce the risk of post-operative hydrocephalus. These include pre-operative use of high dose steroids; avoidance of external ventricular drainage when possible; meticulous microsurgical technique, especially avoiding unnecessary prolongation of surgery to prevent CSF seeding; meticulous wound closure and many others.

This travelling fellowship has resulted in a significant amount of research, which has resulted in a few papers that are at various stages of publication. With my experience of paediatric hydrocephalus I was selected to join Harry's Hydrocephalus Awareness Trust (Harry's HAT) as Clinical Trustee. Work carried out during the travelling fellowship has resulted in a national level prize – the SBNS Sir Hugh Cairns prize. It is hoped that there will continue to be ongoing international collaboration in the true spirit of global neurosurgery.