

A Tribute to Tham Cheok Fai, “Founding Father” of Singapore Neurosurgery

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Introduction

In 1960, Dr Tseng Yuen Lin returned home as the first formally trained Singaporean neurosurgeon after a 2-year stint at St Vincent’s Hospital, Sydney. He unfortunately passed away of perforated appendicitis in 1962. Dr Tham Cheok Fai (Figs 1a and 1b) (commonly referred to by his trainees as “Mr Tham”), an aspiring spine surgeon at Orthopaedic ‘C’ Unit, Singapore General Hospital (SGH), was selected to succeed Dr Tseng after his passing. Mr Tham trained at Guy’s Maudsley and King’s College Hospital under world-renowned epilepsy neurosurgeon Professor Murray Alexander Falconer from 1963 to 1965. He returned to establish the first section of neurosurgery in 1965 at the Thomson Road Hospital (TRH). The fledgling neurosurgical service proved to be a resounding success by nearly doubling its operative volume by the early 1970s and receiving training accreditation by the Royal Australasian College of Surgeons (RACS). In 1972, the Singapore government decided to develop specialisation in the neurosciences and commissioned the building of a new neuroscience department at Tan Tock Seng Hospital (TTSH). In 1973, the Department of Neurology and Neurosurgery was opened, with Mr Tham as the Head of Department. From 1974 to 1976, the department received much needed support from American and Canadian neurosurgeons through the Foundation for International Education in Neurological Surgery (FIENS), and by late 1975, was pronounced a “mature” unit according to standards of the FIENS programme. By the mid-1980s, the neurosurgical unit at TTSH already sported 8 fully qualified neurosurgeons as well as the latest state-of-the-art operative and imaging equipment.

The Early Days of Neurosurgery in Singapore

In 1956, Sir Ian Douglas Miller, founding member of the Neurosurgical Society of Australasia (NSA) and Chairman of the RACS, visited (SGH) to promote the specialty of

neurosurgery. Prior to his visit, general surgeons dealt with surgical pathologies of the central nervous system, often with morbid outcomes.¹

“The results of brain surgery in Singapore were nearly 100% mortality at that time. Actually, for brain tumour, I saw only one who lived,” recalled Mr Tham in his interview with the National Archives of Singapore.²

Out of goodwill, Sir Douglas Miller offered to train Dr Tseng Yuen Lin (Fig. 2), then a resident at the SGH Surgical Professorial Unit, in the specialty of neurosurgery. From 1958 to 1960, Dr Tseng studied under Sir Douglas Miller at the St Vincent’s Hospital in Sydney, and returned as Singapore’s first fully qualified neurosurgeon after passing the Fellowship of the Royal Australasian College of Surgeons (FRACS) examinations. Upon returning, Dr Tseng took over the management of all patients with intracranial surgical pathologies, but seconded spinal cord pathologies to Professor Donald Rickson Gunn from the Orthopaedic Surgery Unit after a mutual agreement between the 2 of them was reached. In 1962, Dr Tseng passed away from perforated appendicitis prematurely. Mr Tham, who was then Professor Donald Gunn’s senior registrar, was chosen to succeed Dr Tseng as Singapore’s only neurosurgeon. From 1963 to 1965, Mr Tham trained at the Guy’s Maudsley and King’s College Hospitals in London under world-renowned Professor Murray Alexander Falconer, an authoritative figure on epilepsy surgery at that time.

Mr Tham described Professor Murray Falconer to be a surgeon of exacting standards who would “brook no nonsense”.² Taking a history and performing a physical examination for a patient admitted under Professor Murray Falconer often meant investing more than an hour. The Guy’s Maudsley Hospital at that time boasted one of the best seizure surgery programmes in the world with a strong emphasis on teaching activities. The training at Guy’s Hospital gave Mr Tham a sound foundation in the neurosciences and an excellent example which the future

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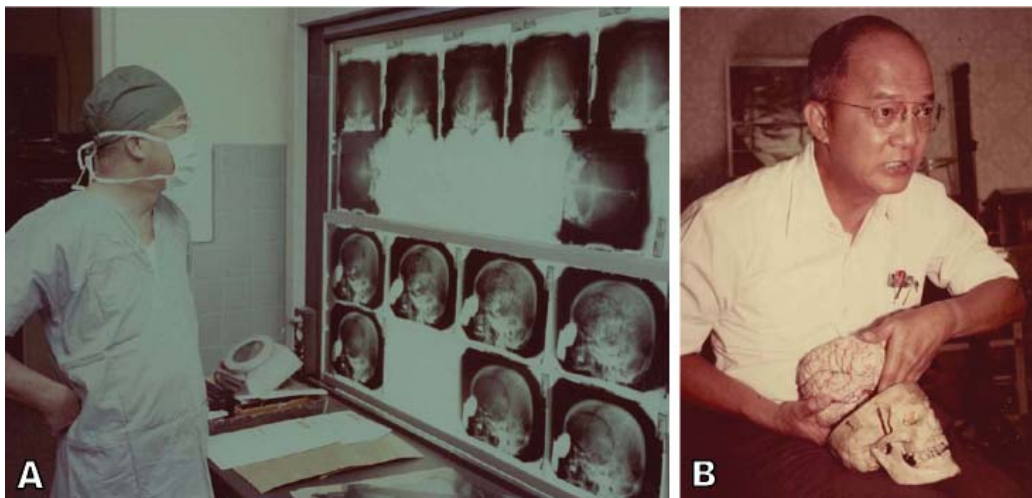


Fig. 1. Portraits of Tham Cheok Fai. In A, he is seen looking at cerebral angiograms preoperatively. Having been trained by Professor Murray Falconer, he was described by his trainees to be “Germanic” in his approach to neurosurgery. An extremely careful surgeon, he was even known to perform his patients’ removal of stitches by himself. In B, Mr Tham at a teaching session using his own brain and skull models. He was a strong advocate of continuing education and placed great emphasis on having a structured clinical teaching programme for the medical officers and nurses in his department.



Fig. 2. Photograph of SGH Surgical Professorial Unit taken in 1956. In the front row, Dr Tseng Yuen Lin is seated on the extreme left, Professor Yeoh Ghim Seng at the centre, and Mr Tham on the extreme right. Dr Tseng would train under Sir Douglas Miller at the St Vincent’s Hospital in Sydney from 1958 to 1960 and become Singapore’s first fully qualified neurosurgeon. After his premature death in 1962, Mr Tham would succeed him as the only neurosurgeon in Singapore at that time.



Fig. 3. Photograph of the Department of Surgery, Thomson Road Hospital (TRH) taken in 1966. This photograph was part of Mr Tham’s personal collection. Mr Tham is seated in the front row, fourth from the left and to his immediate right is Mr Choo Jim Eng (fondly known as “Jimmy Choo”), the Head of the Department. When the section of neurosurgery became successful in the late 1960s, Jimmy Choo gave Mr Tham an additional operating list each week to cope with the increasing demand for his services.

Singapore neurosurgical unit could be modelled after. He returned in 1965 to establish the first section of neurosurgery under the Department of Surgery of TRH (Fig. 3).

Starting out humbly with only a single neurosurgeon with 1 operating list a week, the TRH neurosurgical section grew from strength to strength and by the early 1970s had managed to double its workload. Mr Tham collaborated with several specialists from other fields to introduce neuro-radiology and neuro-anaesthesia to the fledgling service. For their contributions to neurosurgery, Dr Oon Chong Lin (radiologist)³ and Drs Chin Mun Kui, Siva Kanagaratnam, and Lillian Lee (anaesthetists) deserve special mention.⁴ In the late 1960s, the unit received accreditation by the RACS for 2 years of training under the FRACS (Neurosurgery) programme at the courtesy of Western Australian neurosurgeon Dr John Lekias, an important milestone for the training of subsequent Singaporean neurosurgeons.³ In 1971, Dr Gopal Baratham, a Singaporean-born doctor who completed neurosurgical training in the United Kingdom, joined the service as Singapore's second neurosurgeon. During these early years, several international experts from across the British Commonwealth visited the unit to offer advice on its development; amongst them were Professor Norman M Dott from Edinburgh (Fig. 4), Professor Murray A Falconer from Guy's Hospital, Dr Francis P Morgan from Melbourne, Dr John Lekias and Dr Bryant Stokes of Western Australia, Dr Anthony James from Wellington, Dr Trevor Dinning from Adelaide, and Dr John Yelland and Dr Kenneth Jamieson of Brisbane.⁵

In 1972, the government decided to expand neurosurgery under the medical specialisation scheme.⁶ The Department of Neurology and Neurosurgery, a centralised unit dedicated to the diseases of the nervous system, was built at TTSH and opened its doors in 1973. Mr Tham supervised most of



Fig. 4. A photograph from Mr Tham's personal collection that was taken during Professor Norman M Dott's visit to Singapore in the 1960s. From left to right: Mr Tham Cheok Fai; Professor Yahya Cohen, general surgeon at Singapore General Hospital (SGH); Professor Norman McOmish Dott from the University of Edinburgh; Sir Gordon Arthur Ransome, physician at SGH. A resident of Harvey Cushing and amongst the 3 pioneers of modern-day neurosurgery in Great Britain (the other 2 being Geoffrey Jefferson from Manchester and Sir Hugh Cairns at Oxford), Professor Dott had made several landmark contributions to the field of neurosurgery – the best known of which were being the first to surgically treat a patient with a ruptured intracranial berry aneurysm and being amongst the earliest to popularise the transphenoidal approach to the sella turcica.¹¹ Professor Norman Dott spent 2 months with Mr Tham at the section of neurosurgery in TRH to guide the service when it was still in its infancy.⁵

the unit's construction himself and modelled the department after the Guy's Hospital neurosurgical unit in London.⁷ Through a fortuitous arrangement by Professor Donald Gunn, who had moved to join the University of Washington in Seattle, Singapore managed to engage the expertise of North American neurosurgeons through the FIENS programme.⁸ From 1974 to 1976, 11 North American and 1 Canadian neurosurgeon rotated on a 1-to-3 month basis to teach and operate at TTSH (Table 1).⁹ In late 1975, Professor

Table 1. Visiting Neurosurgeons under FIENS (1974 – 1976)⁹

Surgeon	Time of Visit	Affiliation
Wallace Nelson, MD	January – February 1974	Seattle, Washington
W Craig Grant, MD	March – May 1974	Memphis, Tennessee
John R Clark, MD	June 1974	Chico, California
Stanley A Radvan-Ziemnowicz, MD	July 1974	Washington, DC
Robert J Goodall, MD	August 1974	Houston, Texas
Joseph E Gelety, MD	September 1974	Fort Lauderdale, Florida
John C Gibson, MD	October – November 1974	Seattle, Washington
H Harvey Gass, MD	December 1974	Detroit, Michigan
Edward L Katz, MD	January – March 1975	Portland, Maine
Franz E Glasauer, MD	April – June 1975	Buffalo, New York
William D Stevenson, MD	September – December 1975	Halifax, Nova Scotia, Canada
Stanley A Radvan-Ziemnowicz, MD	January – February 1976	Washington, DC
Harold C. Voris, MD	Late 1976	Chicago, Illinois



Fig. 5. Photograph from Mr Tham's personal collection of Professor William D Stevenson and his wife when they visited Singapore in 1975. Professor Stevenson, the first neurosurgeon of Atlantic Canada, is credited for building the neurosurgical service at the Victoria General Hospital in Halifax, Nova Scotia from scratch.¹² He was impressed by the standard of neurosurgery at the TTSH unit and pronounced it to be a mature unit, which led to the FIENS withdrawal in early 1976.

William D Stevenson (Fig. 5), a senior neurosurgeon from the FIENS programme, pronounced the TTSH unit mature.⁴ In the same period, 2 new neurosurgeons trained under the FRACS (Neurosurgery) programme in Western Australia joined the department – Dr James Khoo joined in 1975 and Dr Ong Peck Leong in 1977. In 1977, TTSH procured the most advanced neuroimaging equipment of that time, the Siemens Siretome 2000 computer tomography (CT) scanner, and became the first unit in Southeast Asia to offer CT imaging for intra-cranial pathologies.¹⁰

Although withdrawn in 1976, the FIENS had given Singapore a direct link with North American neurosurgery. Following its withdrawal, several eminent American neurosurgeons still continued to visit the unit as guest lecturers, including great personalities like Dr Thoralf Sundt, Professor Charles G Drake, Dr James Ausman and Professor Peter Janetta. Deserving special mention is Dr Ralph B Cloward from the University of Hawaii (Fig. 6), who performed his trademark 'Cloward's procedure' on Mr Lim Kim San, then the Minister of Finance. Through interaction with our American counterparts, several Singaporean doctors obtained the opportunity to undergo neurosurgical residency training in the United States.

By the mid-1980s, the TTSH unit was staffed with 8 neurosurgeons and equipped with the latest operative and imaging equipment on the market. A full range of neurosurgical procedures were being performed on a regular basis. Mr Tham stepped down as Head of Department in 1985 and retired from clinical practice in 1991. For his contributions to Singapore neurosurgery, he was awarded the Public Administration Medal (Gold) and inaugurated into



Fig. 6. Photograph from Mr Tham's personal collection of Dr Ralph Bingham Cloward from the University of Hawaii (seated on the extreme right) being hosted by Mr Tham at his house. Mr Tham is seated on the extreme left in this photograph. Dr Cloward was famous for being the only neurosurgeon in theatre during the Japanese assault on Pearl Harbour in World War II,¹³ as well as for pioneering the anterior cervical discectomy and fusion (ACDF) procedure for cervical degenerative disc disease.¹⁴

the RACS and the American Association of Neurological Surgeons (AANS).¹⁰ He passed away in 2013 at the age of 88, leaving behind a legacy of neurosurgery in Singapore. For his work, he would be fondly remembered by the neurosurgical community in Singapore as Singapore's "Father" of Neurosurgery.

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