

Early history of anaesthetics in Singapore

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There is a wide gap between events described in my article on the first anaesthetic in the Straits Settlements (1847)⁽¹⁾, and those of Sivagnanaratnam⁽²⁾ and Tay⁽³⁾ on anaesthesia in institutional and private practice in present-day Singapore. This article will attempt to close this gap, however imperfectly, so that we can get a glimpse of the early practice of anaesthesia in Singapore, and when and why anaesthetics became a specialty in Singapore.

Records and documentation of anaesthetic practice are few and far between because day-to-day anaesthetic practice is not world-shaking, and anaesthetists do not come to public and/or official notice until they appear before the Coroner. Culling the official documents does give a glimmer of what the times were like. There will be many quotations from primary sources to make for more interesting reading and to vouch for the authenticity of the events described.

In 1892, the General Hospital recorded one death from the administration of Chloroform⁽⁴⁾. In 1899, 129 operations were performed in the General Hospital requiring the administration of Chloroform⁽⁵⁾.

The 1903 Annual Report of the General Hospital had this item⁽⁶⁾:

“General Hospital. Operations. There were 200 surgical operations performed requiring the administration of an anaesthetic. The anaesthetic used was Chloroform. Besides these, there were numerous minor operations performed, a local anaesthetic, e.g. Ethyl Chloride, Ether spray or Cocaine, being used.

Ethyl Chloride has been used for several years and has proved most efficacious, and has saved a great deal of time. The supply, however, has not been up to the demand.

As far as I (Medical Officer in charge of the General Hospital) am aware, Chloroform has only proved fatal in one case in the hospital, a year or two ago, though it has been administered many thousand times.”

The doctors in those early days were all “all-rounders” and generalists. They were expected to be able to perform any medical duty required of them. A list of operations is appended to demonstrate the versatility of the non-specialist anaesthetists:

“Some of the operations of interest were:

<i>Operations</i>	<i>Nos</i>
<i>Fistula-in-ano</i>	<i>10</i>
<i>Excision of inguinal glands</i>	<i>10</i>
<i>Amputation of limbs</i>	<i>9</i>
<i>Paracentesis Thoracis</i>	<i>7</i>
<i>Haemorrhoids</i>	<i>5</i>
<i>Exploratory Puncture of liver</i>	<i>5</i>
<i>Laparotomy</i>	<i>3</i>
<i>Radical cure of Hydrocoele</i>	<i>3</i>
<i>Strangulated hernia</i>	<i>3</i>
<i>Evacuation of liver abscess</i>	<i>4</i>
<i>External urethrotomy</i>	<i>2</i>
<i>Enucleation of eyeball</i>	<i>3</i>
<i>Tracheotomy</i>	<i>2</i>
<i>Radical cure of hernia</i>	<i>2</i>
<i>Curetting uterus</i>	<i>2</i>
<i>Lumbar puncture</i>	<i>1</i>
<i>Lithopaxy</i>	<i>1</i>
<i>Trephining fractured skull</i>	<i>1</i>
<i>Trephining mastoid cells</i>	<i>1</i>
<i>Tenotomy Tendo Archilles</i>	<i>1</i>
<i>Ligature of Common Carotid Artery for Traumatic aneurysm</i>	<i>1</i>

A more interesting report appeared in 1904⁽⁷⁾:

“General Hospital. Operations. There were 226 surgical operations requiring the administration of a general or local anaesthetic, performed during the year.....

During the last 24 years (since 1880) it has been my practice (J Leask, Colonial Surgeon) to give 25 to 30 minims of Tincture Belladonna, a quarter of an hour or twenty minutes before the administration of Chloroform, and I have had no case of death

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from Chloroform in my practice during all these years. The active principle of this drug has a paralyzing action on the cardio-inhibitory fibres of the Vagus, and so prevents reflex inhibitory impulses affecting the heart's action.

The most numerous and interesting operations were on:

Tumours -3; Abscess -31; Excision of glands -23; Removal of sequestra -3; Excision of shoulder -1; Amputations -20; Trephining skull -2; Harelip -1; Enucleation eyeball -5; Suturing divided tendons -3; Paracentesis thoracis -1; Excision of rib for empyema -1; Exploratory puncture of liver -2; Gastrostomy (Francke's) -1; Hepatic abscess -12; Abdominal section for suturing wounded intestines -3; Strangulated hernia -9; Hernia radial cure -2; Typhilitic abscess-1; Fistula-in-ano -12; Circumcision -17; Hydrocoele radical cure -3; Removal lymph scrotum -1; Elephantoid labium -1; Curetting uterus -3; Ovariectomy -1; Abdominal section of pelvic haematocoele -2."

In 1905, the Medical Officer in charge of Tan Tock Seng Hospital, reported⁽⁸⁾:

"..... There is a wide field for operative surgery and during the year several interesting operations were performed: Amputations lower extremity -14; Upper extremity -4; Resection of part of rib -15; Resection Tunica Vaginalis -5; Radical cure scrotal hernia -4; Abscesses liver, incision and drainage -7; Gastrostomy -1; Castration -3; Removal of malignant growths -5; Lithotrity -2; A few Iridectomies and Cataract extractions. On the whole, the results were encouraging. Chloroform was the anaesthetic used in all operations."

Spinal anaesthesia was first used in Tan Tock Seng Hospital in 1910⁽⁹⁾:

"Tan Tock Seng Hospital. Spinal anaesthesia was introduced during the last six months of the year. 28 operations were performed under this method, as specified below:

Bone-wiring (patella) -1; Sequestrotomy (femur and tibia) -2; Exploratory of malunited femur -1; Bullet wound to tibia -1; Amputation of leg and foot -4; Reduction of dislocated hip -1; Passive movement of knee -1; Arthroectomy -5; Whitehead's operation for piles -4; Fistula-in-ano -1; Amputation of penis -2; Haematocoele -1; Urethrotomy -1; Inguinal hernia -2; Exploratory laparotomy -1;"

More and more operations were performed under anaesthesia in the General Hospital. In 1911,

there were 249 cases⁽¹⁰⁾, in 1912, 427 cases⁽¹¹⁾, and in 1913, 629 cases⁽¹²⁾. A similar increase was recorded in Tan Tock Seng Hospital.

The Medical Officer-in-charge, Tan Tock Seng Hospital, reported two anaesthetic deaths in 1913⁽¹³⁾:

"..... There were two deaths under Chloroform, one from Shock during operation for removal of a large malignant Ovarian Cyst; the other from Status Lymphaticus during operation for removal of extensive Tuberculous glands of the neck."

In 1914, 1,122 operations were performed under anaesthesia in the General Hospital⁽¹⁴⁾:

"In the 1st, 2nd and 3rd Class Wards (for Europeans, Eurasians and better class Natives), there were 261 operations, the chief of which were: Hernia -12; Appendectomy -11; Other laparotomies -8; Resection and Suture of Intestines -5; Wiring and plating bones -5; Amputations -3; Hepatic abscess -2; Caesarian section -1; Nephrectomy -1.

Native Wards. Operations (male and female) numbered 861. The chief were: Amputations -14; Hernia -11; Haemorrhoids -11; Harelip -5; Other plastic operations -11; Appendectomy -4; Other laparotomies -9; Trephining -7; For Mastoiditis -6; Hydrocoele -6; Resection and suture of intestines -5; Splenectomy -5; For Fistulae and Sinuses -25; Wiring and plating of bones -3; Hepatic abscess -2; Ovariectomy -2; Nephrectomy -1; Hysterectomy and Laminectomy -1 each."

In November 1925, an anaesthetic death occurred in the General Hospital⁽¹⁵⁾. This time, not of a native, but of a Briton, and to compound the tragedy, a Medical Officer in the Government Service. This jolted the administration into action. There was a Coroner's Inquest. Dr DR Hennessey, a Medical Officer (appointed in July 1923) had been admitted to hospital for extraction of septic teeth under Chloroform. He died while under anaesthesia. The Governor reported the incident to the Secretary of State for the Colonies, and in December, forwarded a copy of the proceedings of the Coroner's Inquest⁽¹⁶⁾.

In February 1926, there was another Coroner's Inquest on one RC Lewis, who had died under general anaesthesia prior to a mastoid operation in the General Hospital. This was also reported to the Secretary of State for the Colonies⁽¹⁷⁾. With the opening of the new General Hospital on March 29, 1926, and these two tragedies involving Europeans, the Principal Civil Medical Officer asked the Governor to request the Secretary of

State to recruit a “specially trained anaesthetist” for Singapore.

The Governor sent a despatch on May 31, 1926⁽¹⁸⁾. The request was approved⁽¹⁹⁾. There was some delay and the Governor sent a telegram to the Secretary of State on January 14, 1926: “Anaesthetist – shall be glad if selection can be expedited as need of such a specialist increasingly pressing⁽²⁰⁾”. The Secretary of State replied on March 7, 1927 that he had appointed Dr A. Barnsley as a Medical Officer (Anaesthetist) for the General Hospital, Singapore⁽²¹⁾. Dr Barnsley served for three years and resigned the Service on May 7, 1930⁽²²⁾. Dr EB Murrell, MRCS, LRCP, B Chir, was appointed Medical Officer (Anaesthetist) to succeed Dr Barnsley on August 21, 1930⁽²³⁾.

Two anaesthetic deaths were reported in 1932, one in the General Hospital and one in Tan Tock Seng Hospital⁽²⁴⁾. Having specialist anaesthetists does not eliminate unfortunate cases of misadventure.

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