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SPECIAL ARTICLE

The Birth of the Royal College of Surgeons of Thailand

Lord Buddha : *The Present Derives from the Past.*

Sir Winston Churchill : *The Further You Can Look Backward, the Longer You Can Look Forward.*

THE PAST

CHINA The ancient Thai as we were told during the student days migrated from the *Altai* mountain range in the northern part of the present day China and settled down in *Old Chiengsan* in the present day Chiengrai Province northern most of the country in the beginning of the 13th century of the Buddhist era.

Because of our long contact with our brother Chinese for thousand of years the Chinese Medicine had influenced our way of medical practice in treating the sick and promotion of health.

The Father of Medicine, *Emperor Shen Nung*, 3000 years B.C. composed the first medical document called *"Pen Tsao"* which explained the medicinal actions of opium, rhubarb, aconite, croton and inorganic materials as iron, sulphur and arsenic in the treatment of diseases.

Two thousand six hundred and fifty years B.C. *Emperor Hwangti* composed another Chinese Medical Document *"Nei Ching"*. This medical text book revealed the discovery of circulation. It says "blood in the body under control of the heart flows in circle". (William Harvey 1578-1657 discovered circulation of blood in the year 1628 A.D. – four thousand years later).

In the above text book the *Hwangti Nei Ching* explained the theory of the two forces – *"Yin"* and *"Yang"* and also there were two kinds of blood. In one kind Yin is prevailing, the principle of the night, in another Yang, the principle of the day. This examplifies the red arterial blood and the black venous blood. The equilibrium of the two forces maintains health.

The first well-known Chinese surgeon *Hua Tuo* (A.D. 112-205) operated the broken arrow head from the shoulder of one general in the Chinese Army of the *Tri-Party War* in the Chinese history. He first described the use of cannabis indica to relieve pain, first to open abdomen to remove spleen, first to record over 200 kinds of pulse found in various diseases. Unluckily he found his death as the result of his suggestion

to operate on the head of a general suffering from some severe headache. Hua Tuo today is being regarded as "God" by many Chinese.

Organotherapy was known in China in the ancient time. Critins had been treated with the dried sheep thyroid.

Preventive Medicine was known in China – sniffing of dry powdered crust from small pox patient was used in the prevention of small pox, thousand of years before Edward Jenner.

"Ma-Huang" the Chinese herb contains ephedrine for the treatment of asthma. Many other Chinese herbs are still shining of their glory in treatment of many ailments of today.

INDIA When the *Arayan* migrated into the land of the so-called India they brought with them the philosophy of life that life was governed by heavenly body from the *Heaven to Earth.* To please so many Gods of life they invented ceremonies concerning the every day life, the governing bodies, customs, cultures, medicine and finally the truth of life. In succession there are three epoch periods.

1. Vedic Period 1500-800 B.C.

a. Rig-Veda–Knowledge of hymns of life
b. Sama-Veda–Knowledge of melodies
c. Yajur-Veda–Knowledge of sacrifice
d. Atharva-Veda–Knowledge of magic

Diseases were thought to be caused by the displeasement of the so-called god. So there should have some way to please him either by the invented knowledge of hymns of life, by the knowledge of melodies, by knowledge of sacrifice especially the animal the so-called scrape goat and even the human life, and finally by the knowledge of magic.

Even today many Thai people are practicing the above knowledge to remedy many of their ailments. Wearing amulets and charm originating from the *Atharva-Veda*–the knowledge of magic are seen every where in Thailand.

2. Bramin Period

The *Bramin Period* followed the Vedic Period and the *Bramin* monopolised themselves as the only communicator to the *Bramin Gods.* All the ceremonies had to be performed by the Bramin and no body else could do.

Two outstanding figures in the history of medicine emerged out during the Bramin Period–One physician and one surgeon whose teaching appeared in the text so-called "Samhita" are learnt until today.

a. Susruta (5th B.C.) – a surgeon composed a text book called *"Susruta Samhita"* – compilation of his work describing some 125 surgical instruments, mainly devoted to surgery, anatomy, midwifery and opthalmology.

b. Charaka – a physician of second century of *Christian era*–his work *Charakasamhita* was dealing with the diseases of the heart, the lungs and abdomen. It also dealt with how to manage hospital properly.

3. Buddhist Period 543 B.C.

Promotion of Health, Prevention of Disease and Sanitation and Curing of Diseases are outlined in the Holy Scripture and can be learned by students of today.

Chivakarkomarapuj – the most noble Surgeon and Physician that made his name known all over by opening the skull of long headache sufferer and removing "worm" from his brain showing craniotomy was practiced 2500 years ago. He was also the personal physician of the Lord Buddha and was successful in treating his fistula in ano. To the Thai traditional medical practitioners Chivakarkomarapuj is regarded as *"The King of Pharmacy"* On the day of his final examination at the world famous *University at Takasila* – the story was told and retold that he could not find any herb that could not be used for herbal medicine. Every herb posseses its own entity to treat certain specific disease and the question is how one would know. He is also regarded as the *"Father of Thai Traditional Medicine"*

Medicine of Sukothai Period (A.D. 1257-1367)

Before Sukothai was founded as the capital of the Thai people in this Golden Peninsula the migrated Thai from Yunnan had founded the old Chiengsan (A.D. 757-1296), and also Lanna Thai (A.D. 1296-Now) having Chiengmai as the Capital.

The migrated Thai from Chiengsan and Lanna Thai conquored the Khmers and established the Kingdom of Sukothai from 1257-1367 A.D.

On top of the old Chiengsan medical practice there were additional methods derived from Buddhism from *Lanka* (Ceylon) and also from Khmers where one sees both *Brahmanish* and *Buddhism* mixedly practiced. *Environmental Sanitation* in the form of proper drinking water and better sanitary sewage disposal were provided. Nutrition became more concious among the people. Construction of good roads lead to better delivery of health care to the remote rural. Primary health care seem to exist here 700 years ago. These are learned from the stone inscriptions and other acheological evidence. No pestilence as cholera or small pox was recorded. Better mentality as evident by high craftmanship in casting Buddha images and ceramic wares is obvious even today.

Medicine of Ayuthaya Period (A.D. 1350-1767)

Before the end of the fifteen century people from the western world started to focus their eyes towards the eastern world particularly for the richness of gold and valuable spices in India, no need to mention about the highly treasured silk from China. The old silk route to China was well known even before the time of *Marco Polo.* Indonesia was known as the isles of spices. The result was *Columbus* discovered America in the year 1492 and *Vasco Da Gama* made successful sea trip to India via the Cape of Good Hope, southern most Africa, in the year 1497. Then followed by the policy of colonization that remained for almost 400 years.

A.D. 1511 Portuguese

In the early of 1511 Siam made first contact with the west during the reign of *King Rama Dhibodi II* - the Portuguese under *Fernandez* and his followers came to Ayuthaya.

The *Portuguese Missionaries* came to settle in Ayuthaya and constructed churches (King Rama Dhibodi II).

During the reign of *King Chairajathiraj* (1534-1546), *Fernao Medes Pinto* - a Portuguese of many talents claimed himself as a *Doctor* and helped to treat many diseases.

"Ointment" was known to be introduced into Siam during the Portuguese contanet.

"Foi Tong" famous Siamese dessert of sweet egg noodle is claimed to originate from the Portuguese.

A.D. 1598 Spain

A Spaniard - *Don Tello de Aguirre* from Manila visited Siam during the reign of *King Naresuen* in the year 1598.

A.D. 1608 Holland

In 1608 as the result of the visit of the Dutch ships and the merchants *King Ekat-Otsarot* dispatched the first Siamese Mission to Holland to study and explore the possibility of ship building in Ayuthaya.

A.D. 1605-1610 Japanese

Contact was made during the reign of King Ekat-Otsarot, *Yamada Nagamasa* came to settle down in Siam and later assumed high title of *Pya Senapimuk* during the reign of *King Songtam.*

A.D. 1612 England

King Songtam granted audience to the first English group to Siam. The purpose was commercial.

A.D. 1676 First French Missionary

Under the supervision of *Mr. Cherboneau,* the French Missionaries made their entrance into Siam and started the first recorded hospital in Ayuthaya during the *King Narai's* reign. Thousands of Siamese sought treatment for their ailments at this hospital in one year.

A.D. 1687 La Loubere

The French envoy from the Court of Louis XIV to Siam of King Narai made a master piece document about medical practice and diseases of that period of time. The recorded diseases were diarrhea, dysentery, malaria, influenza, septic infection, tetanus, seizure and paralysis, yaws, boils, scabies, tropical ulcers, bleeding from gum, lepers, psychosis and venereal disease. Pestilences were smallpox and cholera.

King's physicians consisted of Chinese, Mon and Siamese without knowledge of anatomy, physiology and Surgery. Massage was popular with steam bath. Drugs consisted of herbal origin for reducing fever, use of simple minerals and use of quinine. Food for patients consisted of boiled rice and no meat.

After reading of his descriptive observation on the art of *Siamese Medical Practice* one is being convinced that *Mr. La Loubere* might have medical training prior to his journey to Ayuthaya.

First Known Suturing of Wound in Siam

In the later period of *King Narai* there was a rebellion staged by a moslem believer group from *Madagasca* whose attempt was aborted and fled away through Bangkok where the French troop stationed.

There is a documentary event compiled by a non-medical French officer by the name of *M. Chevalier de Forbin* who came to Siam with the first French good will mission led by *M. Chevalier de Chaumont.*

King Narai would very much indeed like to have a French officer remained to train his soldiers up to a higher standard in the field action.

M. Chevalier de Forbin recorded that there might be some misunderstanding between the French soldiers and the rebels. One French officer by the name of *Major Bourercart* was stabbed at the belly with the gut outside, *de Forbin* tried to thread silk through the needle and after attempting to put the gut back into the belly, he started to sew the belly wound with all the success. The sutured wound was then painted with white of egg mixed with wine. The patient recovered in 10 days.

This was the first known attempt to sew the wound in the Siamese history of medicine.

Ambroise Paré – a French Surgeon whom the world regarded as the *Father of Modern Surgery* living between 1510-1590, introduced the first use of ligature to close the open wound and to control hemor-

rhage in the year 1550.

M. Chevalier de Forbin might gain this knowledge of how to sew the wound from the teaching of Ambroise Paré.

The Bangkok Period (A.D. 1782-1981)

Bangkok was founded as the Capital of the Kingdom by *King Rama I,* after the short lived Dhonburi period of 15 years in the A.D. 1782. It was a period of restoration after the fall of Ayuthaya that had existed with all the glamor for 417 years.

The First Modern Surgery Performed 1837

On March 20, 1833 a treaty of amity and commerce between United States and Siam was signed by *Mr. Edmund Roberts.* Then came the greatest pioneer among the Amercian Board missionaries the *Rev. Dan Beach Bradley, M.D.* who after travelling for one year from Boston reached Bangkok on July 18, 1835.

January 13, 1837 at the dedication of a temple restored by the *Phra Klang,* Minister of Foreign Affairs, a cannon burst killing and injuring several people. Dr. Bradley saved the life of a Buddhist monk by amputating his shattered arm.

This was the first modern surgical operation ever performed in Siam. The modern anesthesia was not yet invented until 8 years later.

Introduction of Anesthesia into Siam in 1848

March 22, 1947 was marked with the arrival of *Dr. Samuel R. House, M.D.* in Siam. He was another American missionary.

Dr. House made another remarkable "first" as a surgeon in Siam, possibly in all Asia, to use ether as an anesthetic in 1848 only two years after "ether" had been used to abolish pain at the *Massachusetts General Hospital* in Boston by a dentist *Dr. Edward Green Morton* on October 16, 1846, and *Dr. J.C. Warren* was the Surgeon. Dr. House operated on an eighty-four year old woman to remove eight-inch bamboo splinter from her leg.

Dr. House was a man of exceptional courage with gentle heart. During his official journey in the north of Thailand in *Lampang Province* he was gored in the abdomen by an elephant. He was far away from a nearest help. He then determined to sew his own wound in the abdomen with success. He had faith in *God*—God helps those who help themselves.

First Caesarian Section in Siam 1894

While staying as missionary doctor in *Nan,* northern Siam, *Miss Mary Bowman, M.D.* performed the first—Caesarian operation in this country. Necessity inspired her to do such a dareling effort as patient could not be turned to any one else.

Introduction of Antiseptic Surgery by Dr. F. Schaeffer (German) 1896

An English Surgeon, *Lord J. Lister* first introduced *Antiseptic Surgery* into surgical practice on March, 1865. The principle was the use of antiseptic to prevent infection commonly followed the operation. The effective chemical compound used as antiseptic was first carbolic acid and later the murcury compound.

In 1896 A German Doctor by the name of *Dr. F. Schaeffer* introduced antiseptic surgery into Siam. Carbolic acid was used to sterilize the instrument table, and instruments. The patient skin was painted with iodine. The hands of surgeons were immerged in the solution of murcury. Dr. Schaeffer was an imminent surgeon and was requested by the Royal Government to draw up plan for the *Chulalongkorn Hospital* to be opened in 1914. Unluckily Dr. Schaeffer passed away from septicaemia resulting from his attempt in performing post-mortem of a Thai medical colleague who died from septicaemia. Rubber gloves were not known yet in Siam by that time.

Introduction of Aseptic Surgery by Dr. Th. Van Wesel

During the first *World War* in 1915 while Siam still proclainmed neutrality a German Surgeon was invited by the superintendent of the *Royal Medical School* to teach surgery. His skill in using scissor and knife impressed his students so much so that they adored him and followed his instruction closely.

Dr. Th. Van Wesel introduced Aseptic Surgery into Siam in 1915. The idea was introduced by three Great Surgeons :

a. *Steam Sterilization* by German Surgeon-*Von Bergman 1890.*
b. *Sterile Glove* by American Surgeon - *Dr. Halsted 1890.*
c. *Operating room cleanliness* by an English surgeon *Mr. Lawson Tait 1890.*

Fundamental Development of Surgery During Time of Rockefeller Foundation 1923-1935.

On the agreement signed by the *Royal Siamese Government* and the Rockefeller Foundation *Prof. T.P. Noble* from *Edinbourough* was invited to take charge of the Department of Surgery at the Siriraj Medical School. Principle of surgical education and practice were taught by him and his Siamese Colleagues with their education and experience from abroad. Great advancement was seen in the field of General Surgery-most of the cases were abdominal surgery and occasional thyroid surgery. Orthopedic surgery was also outstanding. Genito-urinary surgery almost all concerned with bladder stones.

Foundation for modern surgical practice was laid

down and the product of which are still being seen until to day. *Prof. Prachak Tongprasert and Major General Saguan Rojanawonse* are few of the outstandings.

Revolution in 1935 and Provincal Surgical Practice.

The philosophy after the Revolution in 1935 was and is that man are born equal where ever he is-*Bangkok* or Provinces. More provincial hospitals were built especially in the *North-East* and the *North.* The most common surgical cases from the North-East and the North were removal of bladder stones, so much so that the road in the hospital could be laid down with stones removed from the bladder. Malnutrition was the cause and still is the leading cause of bladder stones. Thyroidectomy for endemic goitre was attempted in the hospital in the North where 45% of villagers were goitrous. Thanks to the Government alone and later with the collaboration with *WHO* and *Prof. Romsai Suwanik,* goitres in the North are prevented with introduction of iodised salt during the pre-school and school age children.

Surgery After the Second World War 1945.

The Second World War found its end on August 15, 1945. Restoration and improvenment of the Art and Science of Surgery were perceived with the generous help from the U.S. Government.

In 1950 the U.S. Government sent one energetic young Assistant Dean from Washington University-*Dr. Ben Eiseman* to explore medical facilities in post war Thailand. He had been invited to see and felt for himself the need to improve the health of the country. Dr. Ben Eiseman is the surgeon by training and experience gained before and during the World War in Europe. Surgical supplies and instruments were pouring into hospitals throughout the country on his recommendations. Fellowships and Residents seeking training in the U.S. were numerous and never seen here before.

Prof. Udom Poshsakrishna- the German trained surgeon during the war on his return to his mother country opened up the field of stomach surgery and the nearby structures as gallbladder, biliary and pancreatic surgery. He eventually expanded his interest into brain surgery. He is really the Father of Neurosurgery in Thailand and was the First-President of the Royal College of Surgeons of Thailand.

Prof. Sman Muntaporn- the English trained surgeon during the war years also started the stomach surgery and also the nearby organs. His later interest led him into the field of Thoracic Surgery-the lungs and the heart. He also should receive the credit as the Father of Chest Surgery in Thailand.

Notice is here being given that many unsung heroes in surgery that deserve mentioning but because of lack of space.

The indispensible helps in promoting the Art and Science of Surgery in Thailand after the war are also from *USIS, WHO, The British council,* the Colombo Plan that deserve heart felt appreciations.

The Dawn of the Era of Specialization (1950-1981)

The beginning of specialization in the field of Surgery took notice since 1950. The *American Board Certified* Thai Surgeons on their return was a stimulus for the creation of The Thai Board Certification carried on by the Thai *Medical Council.* Internship and Residency training program were launched and carried up to to-day.

The International College of Surgeons-Thailand Section.

This organization for promotion of the art and practice of surgery for the good of mankind through out the world was originated by a group of surgeons in the U.S. and other Countries and was headed by *Prof. Max Thorek of Chicago* was chartered in Geneva in 1935. *Thailand Section of The International College of Surgeon* for promotion and development of Surgery in Thailand was inaugurated by the Founder in 1954. *The Prime Minister Field Marshall P. Pibulsonggram* donated one hundread thousand bahts for the starting fund.

THE PRESENT

The Highest Dream

On July 25, 1972 after a long and tedious discussion among the members of the Board of Examiner for Surgery under the Thai Medical Council, tentative proposal of *The College of Surgeons of Thailand* was organised with 42 founder members under the leadership of *Prof. Udom Poshakrishna* with *Prof. Charas Suwanwela* and *Col. Dr. Thamrongrat Keokarn* as Secretary and Deputy Secretary respectively.

It took two years for the drafting of the Rules and the Regulation for the College under guidance of Sub-committee headed by *Dr. Kong Suwanarat* to be approved by the Medical Council.

On May 23, 1975 the approval was signed by the President of the Medical Council and it was announced officially in the Royal Gazett. *Prof. Udom Poshakrishna* was erected as the President with *Prof. Charas Suwanwela* as Secretary General.

The objectives of the College are :

1. To promote and enhance the practice of Surgery.
2. To promote education and research.
3. To promote the prestigue and unity.
4. To distribute knowledge to the people.
5. To be under the Royal Patronage for the merit to serve the people.

The last objective is the highest dream.

For the last five years all the above four goals were met with some degree of successes. Board certifications for Surgery and its Subspecialties are carried on twice yearly. Communications between the College and general public through mass media are organised. Surgical meetings and refresher courses in many fields of surgical specialties are instituted annually. Volunteered surgeons to work in the rural hospitals under program leader by *Dr. Thamrongrat* especially during the time of their Majesties visits have acclaimed great success. *The College Journal* and *Surgical Books* are published and released through the untiring effort of the Editor, *Dr. Thongdee Shaipanich.*

The moment of the greatest enjoyment came on April 7, 1980 that the status of *Royal College of Surgeons of Thailand* was granted by the Royal Command.

The College owe so much thanks to *Prof. Udom Poshakrishna, Dr. Charas Suwanwela, Dr. Thamrongrat Keokarn, Dr. Roongtam Ladpli, Dr. Pradit Charoenthaitavee, Dr. Chirdchai Chiemchaisri, The Secretary General Dr. Kasem Jitpatima* and his *Deputy Dr. Kasem Limwongse* and of course to all members and Excutive Board Members.

THE FUTURE

The Future of the *Royal College of Surgeons of Thailand* will rest in the hands of the young surgeons who will have to prove two things

- Science belongs to no nations
- *Above Self is the Nation, above the Nation is Humanity.*

Sem Pring-puang-geo