

## HISTORICAL REVIEW OF THE DEVELOPMENT OF MEDICINE AND SURGERY IN MALTA

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THE story of disease and healing in the Maltese Islands begins with the earliest inhabitants of Malta and Gozo about the year 2400 B.C. The most ancient remains of medical interest have been found in the Stone Age temples of Mnajdra, Hagar Qim and Tarxien. The sick resorted to these shrines to pray to the deity to restore them to health and, by way of thanksgiving for recovery from their illness, were in the habit of depositing in these temples small 'ex-votos' of pottery in the shape of diseased parts of the human body. There are examples of a swollen face, an oedematous foot and a torso with a prominent abdomen.

That these temples were associated with the healing art is also shown by the figure of the serpent which since very early times has symbolised the art of medicine in the ancient Near East, Egypt and Greece. Pottery objects showing two intertwined coils come from Mnajdra while in the temple of Ggantija in the neighbouring Island of Gozo the figure of a serpent like creature is carved on a large block of stone.

The underground temple at Pawla – known as the Hypogeum and also belonging to the Stone Age period – has furnished us with two statuettes each representing a sleeping woman on a sort of couch. These statuettes are reminiscent of the rite of incubation by which the patient was put to sleep by the priest to have the line of treatment to be followed inspired by the god while the patient was in the hypnotic state.

With the advent of the Phoenicians to Malta about 800 B.C., the god Exmun became the protector of the sick. During the Roman period which begins with the capture of the Maltese Islands from the Carthaginians in 218 B.C. we come across more tangible evidence of the medical art among us such as feeding bottles of baked clay for babies and invalids, the supply of running water for

domestic purposes, the existence of heating arrangements in Roman houses and the provision of toilet seats with a notch on their front edges at the public baths of Ghajn Tuffieha – a design anticipating the modern U-shaped lavatory seats. But the most outstanding medical event of Roman rule was the shipwreck on the Island of Malta in A.D. 60 of St. Paul and his companions among whom was the physician Luke. This evangelist is the first medical man to come to Malta. His Acts constitute the earliest written document known to us dealing with the history of disease and its treatment in Malta.

Practically no records relative to the years that followed the fall of the Roman Empire have survived in our Islands except two, both of which are of a funereal character. One is a tombstone in Greek testifying to the presence of a Christian physician, named Domesticus, who was buried in the vicinity of Mdina which was then the citadel and capital of Malta. The inscription is difficult to date (Luttrell, 1975a), but it is likely that it belongs to the period from the third to the fifth century. The other record consists of a series of stone slabs from a cemetery in the Island of Gozo bearing the crests of church dignitaries and noblemen who were taking part in the crusade of 1270 against Tunis and who are believed to have died of plague in Gozo on their way to the North African coast.

Plague has been one of the scourges of seafarers in the Mediterranean since the early Middle Ages; hence the establishment by maritime communities of quarantine measures which were already in existence in Malta by 1458. Among the penalties laid down against breaches of the quarantine laws was the burning of merchandise and also of the homes of offenders to ensure the elimination of the fomites of the disease.

Not far from Mdina was the hospital of the Holy Ghost which according to legend was founded by St. Francis of Assisi on his way to Africa in 1220. Although this tradition remains a myth, there are documents which prove that the hospital was already in existence in 1372 when it was under the direction of a Franciscan Friar of the Order of the Minor Conventuals who came to Malta in that year (Luttrell, 1975 b). In 1575 it consisted of a small church containing only four beds in each of which two patients were placed according to the usage of the time. Besides the sick the hospital also received foundlings. For this purpose it had a contrivance called 'rota' which was a cot revolving on a vertical axis that communicated with the outside of the hospital by means of a window through which the unwanted baby was deposited inside the cot. The building was enlarged in subsequent years and its bed complement in-

creased considerably. It continued to function uninterruptedly as a hospital up to 1967 when it was closed down by the government. Until then it could boast of a continuous history of over six hundred years and claim to be one of the oldest surviving hospitals in Europe.

A new phase in our medical history begins with the granting of our Islands as a fief to the Knights Hospitallers of the Order of St. John of Jerusalem in 1530 by the Emperor Charles the Fifth; but our association with this band of aristocratic rulers opens rather sadly. One of the earliest Maltese doctor on record is Joseph Callus who was born in the early years of the 16th century. He was already in practice in 1530 and had joined the naval medical service of the Order of St. John being engaged on the *Sant'Anna*. Five years later he was appointed District Medical Officer at Mdina.

On taking possession of Malta, the Order of St. John had solemnly declared to respect the political and other liberties of the Maltese but Grandmaster Jean de la Vallette soon forgot this promise and took the imposition of taxes into his own hands: A group of discontented citizens decided to appeal secretly to Philip II, King of Spain, but their petition, instead of reaching the king, fell into the hands of the Grandmaster. Dr. Callus is said to have been the author of the document meant for the king. He was arrested and condemned to death, his execution taking place at Rabat in 1561.

The Order of St. John had its origins in Jerusalem about the mid-eleventh century with the aim of nursing those pilgrims that fell ill during their journeys to the Holy Sepulchre. Hence their name of Hospitallers. In later years they developed also into a military and naval power as they had to defend themselves and their patients from the attacks of the harassed Moslems. On coming to Malta in 1530, one of their first acts was to found a hospital at Birgu where they had settled. This hospital was later transferred to Valletta. It was known as the Holy Infirmary and there the Knights, and sometimes even the Grandmaster himself, served the sick in person in silver plate. This hospital was exclusively reserved for men, the sick being classified into medical and surgical cases and housed in separate wards according to the nature of their illness.

Near the Holy Infirmary was another hospital for women while a district and nursing service was set up in the towns for the benefit of sick women who could not be admitted into hospital.

Drugs for both hospitals and for out-patients were supplied by the pharmacy of the Holy Infirmary which has remained famous for the beauty and variety of its majolica drug jars and pots, some of which are decorated with the coat-of-arms of the Grandmasters such

as those of Alofius de Wignacourt (1601-22) and of Ramon Perellos y Roccaful (1697-1720).

Owing to the prevalence of plague in the Mediterranean during the 16th and 17th centuries, the Order of St. John devised and developed a system of quarantine to control the spread of this disease by contaminated ships, passengers and goods. On reaching Malta vessels were kept for a period of observation and isolation in Marsamxett Harbour before the crews, travellers and merchandise were admitted for treatment at the Lazzaretto which was erected on Manoel Island in 1634. Through its quarantine system, Malta safeguarded not only its own public health and that of other Mediterranean countries but also their commercial interests for once plague had gained a foothold in a country it brought about a wholesale disruption of its social and economic state. To keep itself informed of the health conditions of the various Mediterranean ports, the government of the Order maintained a regular correspondence with the sanitary authorities of such ports as Venice and Naples besides obtaining information from its various embassies in the capitals of Europe (Arch. 1484 and Arch. 1485).

In 1676 Grandmaster Nicolas Cotoner founded the School of Anatomy and Surgery at the Holy Infirmary of Valletta. From this origin has evolved our present medical school which was later incorporated with the University of Malta when this institution was established by Grandmaster Emanuel de Fonseca in 1769. The greatest importance was attached to the performance of dissection and of post mortem examinations in the teaching of anatomy and surgery so much so that to provide the necessary material it was decreed in 1739 that the corpses of knights and of patients dying in the infirmary were to be made over to the teacher of anatomy.

By the 18th century this school had become so renowned that it attracted not only Maltese but also foreign students from as far away as the Eastern Mediterranean. After graduation a number of Maltese surgeons went over to Italy where they made a name for themselves as teachers and practitioners. Mention may be made of the anatomist M.A. Magri who in 1740 was appointed Public Dissector at the Hospital of Santa Maria Nuova of Florence and in 1748 Lecturer in Anatomy and Physiology at the Regio Ospedale of Messina; and of Emanuel Grillet who became Professor of Obstetrics at the University of Palermo.

One of the famous Maltese surgeons who worked and taught at the School of Anatomy and Surgery was Michael Angelo Grima. He was a contemporary of John Hunter and like him received some of his surgical training on the battlefield during the Seven Years War

of 1756-63, though the two surgeons were on opposite sides. Grima has recorded some of his war cases in his book of traumatic surgery. He promoted the spiral suture of the intestines and experimented successfully on the removal of the spleen in dogs. He also published the results of his work on the 'contre-coup' phenomenon of head injuries and on popliteal aneurysm, the latter being published in London in 1773.

Grima was also one of the members of a commission appointed by the Grandmaster to investigate the claims of mesmerism in October 1783. It is significant that this commission reported adversely on this method of therapy several months before the Royal Commission of King Louis XVI issued its condemnation of mesmerism.

Another prominent Maltese surgeon, whose name is still alive on the continent of Europe, was Joseph Barth. He was born at Valletta and begun his studies at the Holy Infirmary but later went to Vienna where he became the oculist of the Empress Maria Theresa. In the Austrian capital he occupied the Chair of Ophthalmology at the University of Vienna which was purposely founded for him in 1773 by the Empress in recognition of his professional services to her son, later Joseph II. He died in Vienna in 1818.

With the passage of the Maltese Islands to the British Crown at the dawn of the 19th century, the medical services established by the Knights of St. John were consolidated and expanded. The following are the highlights that stand out prominently during our connexion with Great Britain:

(1) The beginnings of ether anaesthesia in 1847 about three months after its introduction in London. The first ether anaesthetic was administered in Malta by Assistant Surgeon (later Sir) Thomas Spencer Wells at the Royal Naval Hospital known also as Bighi Hospital.

(2) The development of the concept and practice of public health with the enactment of appropriate legislation for the provision of a wholesome water supply, the laying down of a drainage system in the towns, the prevention of the introduction and spread of communicable diseases, the enforcement of vaccination against small-pox and the regulation of burials outside the churches.

(3) The setting up of courses for the theoretical and practical training of midwives and nurses in 1869 and 1882 respectively – a venture which gradually evolved into our present school for Nurses that is recognised by the General Nursing Council of England and Wales.

(4) The discovery in the human spleen of the causative germ of Brucellosis, then known as Undulant or Mediterranean Fever, by the Army Surgeon (later Sir) David Bruce with the help of the Maltese laboratory worker Dr. Giuseppe Caruana Scicluna. Bruce published his results in 1887 from the Garrison Hospital – the former Holy Infirmary of the Knights – but it was not until 1905 that the source of the microbe was found to be the goat thanks to the research work of the Maltese physician Dr. (later Sir) Themistocles Zammit. Armed with the new knowledge that Brucellosis was conveyed to men by goat's milk practical steps were taken to prevent the infection from reaching human beings. These culminated in 1938 in the introduction of pasteurization of goat's milk which now covers the whole of the Maltese Islands and which has resulted in the almost complete eradication of Brucellosis amongst us.

During the time of the Order of St. John, Maltese medical men, after pursuing their studies at our medical school, sought to widen their training and experience at the universities of Italy and France; but by the early decades of the 19th century the current shifted to Scotland and later to England. It is now the established practice for our specialists and consultants to obtain post-graduate diplomas and degrees in the British Isles. A strong link with the United Kingdom was forged as far back as 1901 when medical graduates of our university became entitled to be registered to practice in the United Kingdom.

Maltese doctors have worked side by side with British physicians and surgeons during the Crimean War of 1854-56 and during the two World Wars. They have served in the Colonial Medical Service and in the medical branches of the British Army, Navy and Air Force. An appreciable number have made the British Isles their home being engaged in general practice or occupying consultant and academic posts in various specialties. Others are in Africa, Canada, Australia and in the United States of America. The World Health Organisation has also availed itself of Maltese physicians especially in connection with public health projects, the control of trachoma and of tuberculosis in various parts of the globe. Many of us through our publications have made an impact on international readership. Thus far from remaining isolated in our Island home, Maltese medical men have not only kept abreast of the stream of progress but have spread out into the world to carry with them the heritage of an ancient European culture and the application of the new advances and techniques of medical art and science to the benefit of all mankind (Cassar, 1965).

## REFERENCES

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