# *Early Modern - Hospitaller Medicine* [1]

The end of the Medieval period on the Maltese Islands saw the arrival of the Order of St. John of Jerusalem, an order with strong hospitaller traditions. The arrival of the Order served to maintain and introduce medical concepts that developed in Europe during the sixteenth and subsequent centuries. The Order of the Knights Hospitallers of St. John had its origins in Jerusalem in the early years of the first millennium AD, when the Benedictines with the help of some merchants built hospitals to cater for the needs of pilgrims. Increasing harassment by the Turks necessitated changes in the organisation and functions of the Order. Thus to the religious and nursing duties were added the chivalrous ones of defending pilgrims to the Holy Land. They were ousted from Jerusalem in 1187, and were progressively pushed westwards by the Turks, until finally they were ousted from Rhodes in the beginning of the sixteenth century. The Maltese Islands were ceded to them in 1530 by Emperor Charles V of Spain. They continued to rule for just under three centuries influencing the Islands until the end of the eighteenth century, when they were expelled from the Islands by Napoleon Bonaparte in 1798. The French influence was

[1] First published in: C. Savona-Ventura: *Outlines of Maltese Medical History*. MidSea Publ.: Malta 1997:p.25-33

short-lived since the Maltese rebelled and blockaded the French in the towns with the help of the British. The French commanders capitulated on the 5th September 1800.

The Military Knights were the sons of the great houses of France, Spain, Italy, Germany, and England. The French influence predominated. This cosmopolitan group enabled the Islands to maintain a strong cultural attachment to the mainland in Europe and thus benefit from the renaissance movement on the continent. This cultural movement, characterised by the re-awakening of ancient learning through direct knowledge of Greek and Roman authors, was not confined to the arts. It resulted in a new general outlook with emphasis on knowledge of nature and the view of man as nature's masterpiece. This was the beginning of Humanism. Interest in classical antiquity was cultivated, while metaphysical speculations ceased and the fetters on learning imposed by the medieval attitude towards religion fell away. Observation of phenomena replaced theoretical procedures. Science advanced from the dark into new territories. The same held true for medicine.

The arrival of the Order to the Islands brought an influx of physicians and surgeons to the islands, thus correcting the deficiency of medical personnel experienced in Malta during the late Middle Ages resulting

from the expulsion of the Jews from the Islands. At Rhodes, the Knights had a code of laws designed to safeguard the health of the community. These laws were comprehensive and dealt with measures to control infectious disease, the issuing of licenses to practice medicine and surgery, and to identify the responsibilities of apothecaries and medical men. This code of laws was introduced in the Islands, and was amended and modified throughout the subsequent centuries by a number of *Protomedical* decrees until the publication of the legal code of 1724 which was eventually incorporated in the De Rohan Code of 1784. The Church authorities further exercised control particularly in the practice of midwifery. The first legal enactment to control midwifery in Malta dates to 1624, when midwives were required to obtain a licence from the *Protomedicus*. The ecclesiastical authorities on the other hand influenced their control earlier. The first Inquisitor to Malta in1575 enjoined parish priests to teach midwives the proper administration of Baptism in *casu necessitatis*. These admonitions were repeated by the Maltese Synod in 1625 and by 1709 it was laid own that midwives were to be examined by the parish priests at least twice a year [2].

[2] P. Cassar: *Medical History of Malta*. Welkcome Hist Med Libr., London 1965, p.273-275,394-396; P. Cassar: *The Maltese Midwife in History*. Midwives Assoc., Malta, 1978 p.5

However in the early years of the sixteenth century, the Order was primarily concerned with the defence of the Islands against the Turkish gradual invasion of the Mediterranean. The Knights concentrated their forces in the maritime centre of Birgu. There they established their first hospital. In 1532, after expropriating and demolishing as number of buildings on the foreshore of the town, the building of the Holy Infirmary was started. Besides catering for members of the Order, the hospital was also open to male civilians while it also cared for orphans and foundlings. A few years after its completion, the Infirmary became incapable of providing sufficient beds, and the hospital was enlarged by the addition of another storey. While this extension solved the day-to-day requirements, hospital accommodation still fell short in times of emergency. The Birgu Infirmary functioned until 1575 when the new *Sacra Infirmeria* was build in Valletta. At Birgu, the Italian Knights also kept a small hospital, built around 1554, in their own auberge. This hospital was maintained until the Knights moved to their new city Valletta [3].

Following the Knights victory over the Turks in 1565, the Order decided to build a new fortified city guarding the major harbour of the Islands. A new Infirmary was planned, the site chosen being the south-eastern side of the new capital city. The building, started in

[3] P. Cassar, 1965: *op. cit*., p.37-45

1574, consisted originally of one long ward. It was subsequently enlarged in 1583 by the addition of a new block, and remodelled in 1662 and in the eighteenth century. The hospital wards were open for member of the Order, civilians and slaves. The Valletta Holy Infirmary was one of the best serviced hospitals in Europe and was favourably described by a number of foreign visitors to the Islands during the seventeenth and eighteenth centuries. Thus Rev. Henry Teonge in 1675 commented that the hospital was "*so Broade that 12 men may with ease walk a breast up the midst of it; and the beds are on each side, standing on four yron pillars with white curtains and vollands and covering extremely neat and kept clean and sweet; the sick served all in sylver plate*". The hospital continued in its function till the early twentieth century. Other hospitals were subsequently opened in Valletta and at Rabat-Victoria in Gozo [4].

Medical practice at the beginning of the modern period was primarily based on the teachings of ancient and medieval authors, so that the two physicians - Guiseppe Callus and Rayneri Bonellis - in their discussion of impotence make reference to the works of Galen, Rhazes, Avenzoar and Avicenna. The physicians of the Order kept well abreast with medical developments on the Continent. A number

[4] P. Cassar, 1965: *op. cit*., p.46-67; G.E. Manwaring: *The diary of Henry Teonge, Chaplain on board his Majesty's ships Assistance, Bristol, and Royal Oak anno 1675 to 1679*. London, 1825, p.47

of these in the 17th and 18th centuries are known to have proceeded abroad to Italy and France to further their studies abroad. Thus in manuscript midwifery notes dated to 1804, the lecturer refers to at least twenty authorities of the 17th and 18th century besides referring to ancient authors such as Anaxagoras, Democritus, Hippocratis Aristotle, Galen and Avicenna. Other Maltese physicians, such as Michel'Angelo Grima (1729-1798), published medical papers locally and abroad; while others, such as Joseph Barth (1745-1818), made a name for themselves abroad [5].

Michel'Angelo Grima epitomises the pattern of training received by Maltese practitioners in the eighteenth century. Grima, born in Valletta in 1729, started his surgical training at the age of twelve years at the *Sacra Infirmeria*. In 1750 he left for Florence where he joined the medical school of *Santa Maria Nuovo Hospital*. He obtained his doctorate in philosophy and medicine from the University of Pisa in 1754, but continued to work in Florence where he conducted experiments on methods of intestinal surgery. In 1758 he was granted

[5] P. Cassar: A medico-legal report of the sixteenth century from Malta. *Medical History*, 1974, 18:p.354-359; P. Cassar: Rappporti medico-culturali tra Malta e l'Italia nel passato. *Rivista di storia della medicina*, Jan-Jun 1977 anno XXI, fasc.1, estratto; P. Cassar: *French influence on medical developments in Malta*. Ministry of Education, Malta, 1987, +27p.; P. Cassar: Teaching of midwifery in Malta at the beginning of the nineteenth century. *St. Luke's Hospital Gazette*, 1973, 8(2):p.91-111; P. Cassar: The works of Michel'Angelo Grima (1731-1798). A bibliography with summaries and notes. *St. Luke's Hospital Gazette*, 1974, 9(1):p.3-20

a subsidy by the Order to continue his studies in Paris, later joined the French forces as surgeon during the Seven Years War. In 1763, Grima was recalled back to Malta to begin his duties in the medical service of the Order. He was approved Doctor of Mediine in Malta and given licence to practise as a physician. He was appointed Chief Surgeon at the *Sacra Infirmeria* and eventually was appointed to the Chair of Anatomy and Surgery in 1765. Michel'Angelo Grima died in 1798 [6].

Medical teaching in the early part of the Renaissance remained, on the surface, like that of the Middle Ages with many teachers continuing to express the conservative views of Galen and Avicenna. Nevertheless, new attitudes slowly became evident particularly towards the acquisition of anatomical knowledge. Public dissection was practised in ever-increasing numbers, and towards the end of the sixteenth century anatomy theatres began to be built in various European universities. Anatomy, the study of which is necessary for the rational approach to medicine, was to be reborn in the sixteenth century with the works of Leonardo da Vinci and Andreas Vesalius. There was during this period integration between art and anatomy. The School of Anatomy and Surgery was established in 1676 by Grandmaster Fra Nicolas Cottoner with the first teacher being Dr. Fra giuseppe Zammit. Throughout the seventeenth and eighteenth enturies, there

[6] J.V. Psaila: Grima. The 18th Century Surgeon. *Chestpiece*, May 1972, p.29-41

was great progress in the teaching of Anatomy in Malta though with occasional setbacks. The school of anatomy in the eighteenth century came to acquire great renown under the directorship of Dr. Gabriele Henin and Michel'Angelo Grima. Henin has been regarded the Father of Anatomy in Malta. Though primarily a surgeon, Henin was in 1721 sent to Florence to learn practical anatomy. He was recalled back to Malta when the Chair of Anatomy became vacant in 1723. He lectured on Anatomy and introduced classes of dissection and demonstrations on the human cadaver in public, besides performing all post-mortem examinations. His death in 1754 was setback to the School, until Mikel'Angelo Grima was appointed in 1763. He retained his post until 1797, during which period the School attracted foreign candidates from as far away as the Eastern Mediterranean. The integration of anatomy with art in Malta is also evident with various examples, the most striking being the sixty lapidary slabs at the Co-Cathedral of St. John at Valletta which bear anatomical features. The slab of Fra Etienne de Ricard (1716) is a close mirror image of the skeleton depicted in the book by Andreas Vesalius published in 1543. The celebrated French artist Antoine Favray who lived in Malta in the latter half of the eighteenth century serving with the Order in caring for the sick at the *Sacra Infermeria* studied the skeletal and muscular movements of the human body and prepared anatomical drawings intended for the use of students in the medical school. The School of

Anatomy was the prelude to the Faculty of Medicine at the University of Malta. Following the expulsion of the Jesuits from Malta in 1769, the Society's property including their college erected in Valletta for the education of young men was taken over by the Order of St. John. Out of the revenues accruing from this property, a university was founded by Grandmaster Em. Pinto de Fonceca. The three faculties of Theology, Law and Medicine were established in 1771 and the Chair of Anatomy and Surgery were incorporated in the new institution [7].

A number of diseases are recorded for this period. A disease that reached epidemic proportions in Europe during the late Middle Ages and the Renaissance was syphilis. It was recognised by physicians as a contagious infection spread by sexual contact, so that it was realised that it was aggravated by the widespread immorality of the period, when the cities contained thousands of prostitutes - male and female. The arrival of the Order of St. John to the Islands and the establishment of the Islands as a maritime base brought prostitution to the Islands helping to introduce and spread venereal disease. A prescription list for *Santo Spirito Hospital* dated 1546 records the treatment for venereal disease (*morbo gallico*), while the accounts of

[7] J.L. Pace: *The History of the School of Anatomy in Malta*. University Press, Malta, 1974 p.2-7; P. Cassar: Anatomical errors in the Lapidary of the Co-Cathedral of St. John at Valletta. *St. Luke's Hospital Gazette*, 1974, 9(1):p.13-20; J. Galea: Antoine Favray. *Heritage*, 1978, I(11):p.205-211; P. Cassar, 1965: *op. cit*., p.437-448

1544 report that treatment for the disease was ordered for two females. A similar authorisation is recorded in 1547 for four other women. The treatment recorded included various *unguenta vulneraria*, like *Aegypiaco* and *Masticino* for local lesions. Liquid ointments made from turpentine and tincture of *aloes (Digestivi 1 2 3 4 5 contra morbo gallico*) were also administered to free wounds from pus. Excavations at the 15th century church of Hal Millieri yielded skull remains buried before 1636 that showed erosions consistent with syphilis. As early as the sixteenth century therefore, local physicians were familiar with the clinical manifestations of venereal disease, though they could not differentiate between gonorrhoea and syphilis. They knew that the "*morbus gallicus*" was contracted through sexual contact and that the enlargement of the inguinal glands could be one of its signs. By 1596 the number of affected individuals was so large that the question of providing a place for treatment was brought up. Provision for the treatment of venereal disease in hospital dates from the seventeenth century when a small building adjoining the Woman's Hospital in Valletta, known as the *Falanga*, was set up for female patients. The *Falanga*, expanded to care for male and female patients, was relocated to new premises in 1682. A special attendant was employed to look after the sick undergoing mercurial treatment and hot-air baths. Keiser's pills, the composition of which remained secret, were also administered to patients. In 1762 Dr Fortunato Antonio

Creni wrote a Latin treatise on the disease entitled "*Tractatus physico-medicus de American Lue*", explaining its origins, describing its manifestations and method of propagation. He condemned the employment of crude mercury in its treatment because of its dangers and recommended the oral use of corrosive sublimate dissolved in *'spiritus frumenti'* to neutralise its injurious effects. In 1787, 356 patients underwent treatment at the *Falanga*, while the following year the number amounted to 293. The majority of these were foreigners. Cases found suffering only from a 'simple gonorrhoea' were treated on an outpatient basis. The *Falanga* functioned until 1798. No provision for hospital therapy were subsequently made until 1861 *when Loch Hospital* was set up. Legislative measures were devised to discourage and restrain prostitution. Concurrently with these legal provisions, medical measures to treat and check the spread of these diseases were also taken in the shape of periodic medical examinations of prostitutes -a practice that was introduced during the Order's rule and maintained during the first half of the 19th century under British rule. The risks of acquiring syphilis by midwives during vaginal examinations was commented upon by the medical journal "*La Salute Publica*" in 1879. It advised midwives to wash their hands carefully after examinations [8].

[8] S. Fiorini: A prescription list of 1546. *Maltese Medical Journal* 1988-89 1(1):p.19-31; J.L.Pace and S. Ramaswamy: The Finds: Skeletal remains. In: T.F.C. Blagg, A. Bonanno and A.T. Luttrell: Excavations at Hal Millieri Malta: a report of the 1977 campaign conducted on behalf of the National Museum and the University of Malta.

In spite of progress in medicine and improvements in social conditions, seventeenth century Europe suffered many epidemics as bad or worse as those of the Middle Ages. The Maltese Islands in the Central Mediterranean and an important maritime base likewise was subject to the repeat introduction of various epidemic infectious diseases. Quarantine measures had long been introduced in the Mediterranean in attempts to control the spread of infectious disease. The earliest tentative steps to control the appearance and spread of infectious disease in the Maltese Islands go back to the Middle Ages. In 1458 when ships suspected of carrying plague-infected crew, passengers and merchandise neared Malta, they were directed to moor in the Quarantine Harbour in Marsamxetto away from other ships. Severe penalties, including confiscation of goods and burning the culprit homes, were imposed in 1526 against persons caught trafficking with ships undergoing quarantine. Guards were posted along the coast where hips were likely to land cargo clandestinely. Under the Order of St. John, all merchandise was brought ashore at the *Lazaretto* on Manoel Island for disinfection. As paper was considered a potential vehicle of contagion, letters from abroad were disinfected by dipping in vinegar or exposure to the fumes of burning straw and a mixture of manganese and sulphuric acid. Passengers

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University Press, Malta, 1990 p.84-95; P. Cassar, 1965: *op. cit.* p.224-234; Le

were detained in the quarantine establishment for up to forty days and exposed to "smoking" from the burning of aromatic herbs before allowed freedom of communication with the inhabitants. Infected ships were occasionally towed out to sea and destroyed with their cargo. Henry Teonge in 1675 described the quarantine hospital "*The Lazaretto (a place on purpose for such as are sick of the plague or other pestilantiall disease; which in regard to the heat of the country doth often rage there) lyes close under their outermost wall and is extremely neatly kept and provided for*." These preventive measures were so effective that during the late eighteenth century, when there were no lazarettos in England, ships proceeding there from Turkish ports were obliged by an Act of British Parliament to undergo quarantine at Malta or other Mediterranean ports before being allowed to land their cargo in any part of Great Britain or Ireland. The quarantine measures were retained well into the nineteenth century under British rule [9].

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Levatrrice. *La Salute Publica*, 10th November 1897 1(15):p.3-4

[9] P. Cassar: The control of infectious disease in Malta. A brief historical survey. *Screening for Blood Transmissible disease: Proc. UGMD seminar 25 January 1992* (ed. C. Savona-Ventura) UGMD, Malta, 1992, p.7-14; G.E. Manwaring, 1825: *op. cit*., p.26; P. Cassar: The burning of ships as a sanitary measure two hundred years ago in Malta. *Maltese Medical Journal*, 1990-91, 2(2):p.22-25

| | Plague | Cholera | Smallpox |
|---|---|---|---|
| ***14th century*** | 1348 | | |
| ***15th century*** | 1427-28 1453 | | |
| ***16th century*** | 1501, 1519 1523, 1575, 1592-93 | | |
| ***17th century*** | 1623, 1655, 1675-76 | | 1680 |
| ***18th century*** | | 1745, 1767, 1770, 1783 | 1763,1769, 1780 |
| ***19th century*** | 1813-14 | 1837, 1850, 1854, 1856, 1865, 1867, 1887 | 1830, 1837, 1870-71, 1897-98 |
| ***20th century*** | 1917 1936-37, 1945-46 | 1911 | 1903, 1907-08, 1909-10, 1915, 1919-20, 1925-26, 1946 |

***Epidemics of infectious disease in the Maltese Islands*** [10]

The end of the Middle Ages in the sixteenth century heralded the onset of the Renaissance and the beginning of Humanism. The seventeenth century can be referred to as the "Golden Age of Science", however during this century the gulf between medical practice and advances in research was wider than at any one time before or since. Medical practitioners were for the most part poorly trained and loath to keep abreast of developments, continuing to prescribe the same old remedies of enemas, bloodletting and purging

whatever the disease. This century presented a paradoxical situation in which the natural sciences were developing broadly and swiftly but medicine seemed to be if anything retreating into a more dogmatic attitude that it had adopted during the Renaissance. Alchemy and the sale of panaceas flourished, while surgery seemed to benefit little from the great advances of the previous century. By the mid-seventeenth century, the efforts to free medical thought from the doctrines of the ancients was almost complete. The situation became fluid with many new concepts more or less tenable. Medicine could now advance and the discipline of the exact sciences created an environment for future victories over disease. The eighteenth century was the "Age of Enlightenment" where besides looking increasingly inwards, physicians came more and more to accept only what was observable directly and reproducible by experiment. This attitude set the pattern of scientific thought for the nineteenth century. The constant traffic between the Maltese Islands and the European continent, particularly Italy and France, resulted in practitioners practising on the Islands following the same concepts and trends as on the continent, sometimes contribution actively in the process of medical advancement. The end of the eighteenth century in Malta was marked with a period of strife after the Islands were taken over by Bonaparte in 1798. The Maltese rebelled and blockaded the French in

[10] P. Cassar, 1965: *op. cit*. p.164-209, 251-258

the towns for two years. These two years were attendant with a general disruption of the way of life for both the general populace and the besieged French with the accompaniment of disease and famine.