EYE DISEASES IN MALTA AT THE TURN OF THE CENTURY

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This work is based on reports published by three ophthalmologists working between the years 1890-1909, namely on Prof. L. Manchè's *"Rendiconto degli ammalati ammessi durante il Biennio 1890-91 (per il Dottor Salvatore Cassar) nel Comparto Ottalmico dell'Ospedale Centrale di Malta:* on *"Le Malattie Oculari in Malta: Appunti Clinici e Statistici 1899"* by Dr. Giuseppe Norsa an "oculist" from Rome and on an "Annual Statistical Report of the Eye Diseases treated at the Ophthalmic Institute of Malta from July 1908 to July 1909" by Dr. C. Manchè, M.A., M.D., O.S.U.K. This report was dedicated to the author's father "the Founder of Ophthalmology in Malta in token of love and gratitude".

The report by Dr. Norsa is considered first because it is the most comprehensive and detailed, besides being the work of a foreigner. I think it will be more profitable to start at the end and consider the summary of the report which runs as follows: In Malta one comes across all eye diseases usually found on the continent. As on the African littoral the predominant disease is Granular Conjunctivitis (Trachoma) with its complications and sequelae. Norsa recommended the establishment of Ophthalmic Outpatients Department, free of charge for poor patients in the main centres of the island, along with Medical and Ophthalmic Boards to supervise crowded places such as schools, workshops and homes for the aged. He suggested that public talks should be held on Ocular Hygiene and prophylaxis, that more water should be provided for every inhabitant especially during summer; that the planting of trees and vegetation should be encouraged; that laws should be enacted to check abuses in the consumption of alcoholic drinks. Nowadays we can say that Trachoma has become a rarity. The water supply has been improved, but as regards vegetation, inspite of recent efforts, the island still presents the same, dry brownish appearance, seen by Norsa seventy years ago. Dr. Norsa had been coming to Malta for seven years in summer-time, when eye diseases were more prevalent. He could not avail himself of any statistics on eye diseases in the Government Health Department as none were to be found.

Ignorance, prejudice and carelessness, and a low standard of living contributed then to the diffusion of the trachomatous infection all over the island, and to the increase in the incidence of blindness. People resorted to treatment only during the last stages of the disease. Moreover, the necessary treatment was not easily available. There was an Ophthalmic Department attached to the Central Hospital, created twenty years before through the initiative of Prof. L. Manchè. The beds available were 8 for male patients and 7 for female patients, that is, 1 bed for every thousand persons. Only very serious cases were admitted and patients were discharged as soon as they improved to make room for others.

Norsa used to make regular visits to Tunisia, Tripolitania and Egypt besides practising in Rome. He could thus present a comparative study of eye diseases in the Eastern Mediterranean Basin. The number of patients who came for treatment was 499: Males 297, Females 202. (The age period 21 — 31 years was represented by 18.63%). In Rome the incidence according to sex was more or less equal. In Malta the incidence was higher in males, in spite of a larger female population. This can be explained by the more frequent exposure of men to wind, dust, sun and trauma. The population in Malta in 1893 was 163,314 with 80,370 males and 82,944 females.

The more frequent diseases of the eyes were those of the conjunctivae with 24.67%, diseases of the lids 6.8% and diseases of the cornea 10.80%. In Rome the comparative figures were higher, with the conjunctivae giving 30.32%, the lids 18% and the corneae 17.9%. The main cause of these affections was Granular Conjunctivitis (Trachoma) with its palpebral, conjunctival and corneal complications and sequelae.

Trachoma could be found everywhere in the cities, villages and countryside. Although one cannot rule out the possibility that it had been brought to Malta by French soldiers coming back from the Egyptian campaign, there is evidence that it was present in the island a long time before the conquest of the island by the French. The short distance separating Malta from Tunisia and Tripolitania where Trachoma infection was all pervasive and the old and intricate commercial ties with these countries would have been quite enough to explain its presence here. The contributing factors were the climate, the prevailing scirocco winds that might have brought with them pathogenic matter, the geological formation of the island giving rise to irritant dust and the bright sunshine unmitigated by the presence of vegitation. Other factors which could possibly be remedied by the authorities were the scarcity of water especially in summer-time and over-crowding. That the incidence of Trachoma had become higher and endemic could be seen by the fact that not only the poor people living in overcrowded and dusty surroundings suffered from it, but also the middle and upper classes enjoying a higher standard of living. Irrigation of the eyes by sublimate solution was introduced by Norsa in 1892. It had a beneficial effect on the course of the disease and was accepted and extensively used by his colleagues in the island. He also introduced the use of sopper sulphate crystals which replaced for some time the silver nitrate stick used either pure or mitigated by potash.

Ptergygium was rather frequent. This was to be expected in a place where climatic conditions were so favourable for its appearance. Norsa suggested that it could have been caused by tiny wounds and small ulcerations at the corneal border. Ophthalmia neonatorum does not seem to have been a problem, Norsa reporting only one case. Corneal diseases were represented by 10.8% of the cases. This compared very well with 17.97% in Rome. Neglected Granular Conjunctivitis was to blame for the majority of the cases. Norsa noticed that Phlyctenular Conjunctivitis, usually found in debilitated children, was much less prevalent in Malta (4 cases) than in Rome where he dealt with 58 such cases in a group of 227 patients. Did this mean that the children in Malta were healthier because they breathed marine air and bathed frequently in the sea? Lens changes — cataract — were more common in Malta with 11.02% compared to Rome's 5.14%. Moreover, these changes appeared at an earlier age. This usually happened in hot countries where individual development and organic evolution take place at a quicker pace. Another factor was Diabetes which in Malta was very frequent. Diseases of the uvea showed more or less the same percentage as in Rome with 4.44% and in Malta 4.04%. The main cause was Syphilis. This was to be expected in a place with a garrison of 12,000 soldiers and sailors and which was a port of call for ships from all over the world. More than half the cases of retinal diseases encountered by the author were caused by Retinal Detachment. Syphilis was another cause. Diseases of the optic nerve were more common in women than in men, the opposite of what he found in Rome. Most of these cases were to be attributed to Syphilitic infection. Treatment by an electric current gave satisfactory results. This was applied either directly to the globe or in an 'ascending' sense to the vertebral column. Along with Charcot Norsa deprecated the use of mercurials and of potassium iodide in syphilitic infection as the condition might thereby be made worse.

Norsa was surprised to find that the various forms of Glaucoma were more common in Malta (4.20%) than in Rome (0.63%). Half of the cases were chronic. He performed a Graefe iridectomy which in his hands was a safe and effective

remedy. In surgery he followed the motto *"Cito, tute et jucunde"*. He came arcoss a good number of cases of Toxic Amblyopia due to the simultaneous consumption of alcohol and tobacco. Whisky, gin and cognac were being imported on an extensive scale, whilst the cost of inferior quality tobacco, full of nicotine, was very low. In North African countries where light tobacco was used along with strong coffee no such cases were met with. The author concluded that, whilst coffee seems to be an antidote to nicotine, consumption of alcohol heightened its effect.

Disorders of ocular muscles were more frequent in Malta (6.18%) than in Rome (2.77%). The causes were errors of refraction and central corneal opacities following Trachomatous infection. The incidence of Myopia was high. The frequency of astygmatic errors of refraction could be attributed to scarring of the corneal tissue by Trachoma. He performed 59 operations. Cataract surgery constituted about a third. The rest almost all consisted of Trachoma surgery on the lids, conjunctivae and iris. He operated on 20 cases suffering from Cataract with very satisfrctory results, no complications being reported. Up to this time (1895) Cataract extraction was performed, according to Prof. Liebreich's technique. The lens was delivered through a small corneal incision and iridectomy at the lower part of the cornea. Extraction was an extracapsular one. Dr. Norsa was the first to introduce in Malta the modern technique of a broad incision of the upper part of the cornea and a cataract extraction without complete iridectomy. In four cases he performed an Intracapsular extraction according to Gradenigo's technique. This surgeon used a zonulotome to break the lens ligaments and deliver the lens along with its capsule. A round black pupil free from lens remnants was the usual result. This technique prevented the appearance of a secondary cataract and inflamatory reactions associated with the presence of large masses of lens matter in the anterior chamber. Fifty years were to pass before an Intracapsular extraction was performed in Malta.

Dr. Norsa seems to have been a bold and resourceful surgeon. His visits to Malta were short and he could not afford to wait. He expected quick results. In two children, seven years old, suffering from congenital cataract instead of the usual discission operation, he attempted a cataract extraction under chloroform anaesthesia. In spite of a stormy convalescence the results were very satisfactory. He attributed his success to strict antisepsis. He advocated and resorted to the ancient operation of couching in those cases where the patient was too old, and uncooperative to allow an ordinary extraction. Expulsive haemorrhage in the other eye was one more indication. With regards to diseases of the lachrymal apparatus he limited himself to incision of the lachrymal canaliculi and of the lachrymal sac. He discussed the treatment carried out by other surgeons. He obtained better results by improvement of the general condition of the patient and by the application to the lachrymal region of faradic and galvanic electric current. He also showed interest in squint surgery. Squint seemed to have been more common in Malta (6.8%) than in Rome (2.77%). He performed Strabotomy in six cases.

In December 1891 Prof. L. Manchè, a Surgeon Major in the R.M.A., presented a report to Dr. S. Cassar on 341 cases treated in the *"comparto ottalmico dell'ospedale Centrale di Malta"* during the two years 1890-1891.

In this department there were eight beds for male and seven beds for female patients. There was no proper out-patients department. Many patients were refused admission and others were discharged as soon as possible to make room for other patients. Although Prof. L. Manchè was very busy fighting Trachoma and its complications and sequelae, he found time to publish in 1885, a textbook on Ophthalmology *"L'Ottalmologia in Quadri Sinottici da servire come guida ai Pratici ed agli studenti"*. He was encouraged to write it by professors. Wecker, Liebreich and Meyer, whose clinics he was attending in 1870.

In his report trachomatous infection accounts for no less than two thirds of the cases. He treated Granular Conjunctivitis by means of light touches with a silver nitrate stick and instillation of glycerin and

tannic acid. Extensive scarring of the conjunctive was very frequent. Gaillard's technique was found quite useful in simple Trichiasis. Plastic operations were resorted to in cases of Entropion. Seven cases of Purulent Conjunctivitis were reported. Treatment could not have been very effective as only three were reported to have recovered, the others being left with an adherent Leucoma. The incidence of Kerato-Hypopyon was quite high. He treated ten cases. In a paper read in a meeting of the "Malta and Mediterranean Branch of the British Medical Association" he described the successful treatment of these cases over a period of ten years, by means of the instillation of 2% Eserine Sulphate drops. This treatment rendered unnecessary such heroic treatment as cauterizaton of the ulcer by means of the thermocautery and a corneal incision of the ulcer. Five cases of Interstitial Keratitis (Celtic Keratitis) treated by mercurials and atropine suggest that the incidence of Syphilitic infection was high. He reports the loss of one eye through Panophthalmitis in a series of 19 cataract extractions using Liebreich's technique. The only antiseptic measure used was irrigation of the eye by means of 1 in 2000 corrosive sublimate solution. Anaesthesia was obtained by means of an instillation of 2% cocaine solution.

The Third Report is by Dr. C. Manchè, the son of Prof. L. Manchè.

His annual statistical report deals with 1251 cases treated between July 1908 and July 1909 at the "Ophtalmic Institute in Malta". The Institute was founded in order to enable Prof. L. Manchè to carry on with his work after he resigned from the Government service after forty years of "Incessant Professional Service". The site at Hamrun chosen for the Institute was very convenien t"being within reach of nearly all the towns and villages of Malta, owing to the train running on one side of the building and the Electric Tram on the other".

The Institute was open on all weekdays between 9 and 12 a.m. The poor were treated free of charge. The higher classes were expected to contribute voluntarily for the maintenance of the establishment.

Out of 1251 cases, diseases of the conjunctiva accounted for 954 cases, that is,

Surg. Major L. Manche'.

By courtesy of the Hon. Mr. Justice W. Harding.

76.2%. Trachomatous infection was represented by 62.3%; complications and sequelae of Trachoma involving the lids and cornea, raised this percentage to over 85%. Trachoma was still the all pervading prevalent disease of the eyes. The usual treatment was scraping of the Conjunctive twice a week, supplemented by copious irrigation by Corrosive Sublimate solution, Protargol drops, yellow oxide of mercury and Picric Acid. Treatment by the Silver nitrate stick seems to have been dropped. The average duration of attendance was between two to three months.

He reports 52 cases of Cataract. This was a large number considering the population of Malta at that time. However, he operated only upon 7 cases. Cataract was not operated upon unless it was completely mature. People could not afford to pay the small fee for the operation and stay in hospital. Other patients were reluctant to ask for an operation before they lost vision in the other eye. The results of the operations seemed to have been very satisfactory. His technique — corneal section above, complete Iridectomy and entracapsular extraction was a modern one for that time. Though Squint was very common he only saw 6 cases. People did not care to ask for treatment unless they were suffering from Double Vision. He did not perform any Squint operation, as 3 cases responded to treatment by glasses and the other cases refused operation. Parents did not seem to care about the appearance of their children. They were quite happy with good vision in the stronger eye. In penetrating injuries of the eyeball treatment was prevention of infection, cleaning of the wound and excision of Iris prolapse when present. No mention at all is made of the Giant Magnet. In a reported case of Intraocular foreign body the surgeon waited until the foreign body luckily came out spontaneously at the surface. Two cases of Retinal Detachment were treated by rest in bed and subconjunctival injection of Sodium Chloride solution and Potassium Iodide by mouth. The same treatment was in use until 1940, when Diathermy was introduced. In this report no mention at all is made of Diabetes Mellitus and its complications. Today this disease is responsible for 17% of the blind population in the islands. Is it possible that at that time the incidence of Diabetes was much lower?

These reports show that eye diseases at the turn of the century were being treated by the best means available at that time. The surgeons were very well informed about developments on the Continent and tried to do their best. What was needed was the raising of the standard of living, especially better housing to avoid overcrowding, a good water supply, good sanitation, the establishment of suitable centres for treatment all over the island and education of the masses on ocular hygiene and early treatment.