

Sir Themistocles Zammit: His honours and an annotated bibliography of his medical work

H.V. Wyatt*

*Honorary Research Fellow in Public Health Medicine, School of Healthcare Studies, University of Leeds, 18 Blenheim Terrace, Leeds, LS2 9HD, UK. Email: nurhvw@leeds.ac.uk

Sir Themistocles Zammit Kt., CMG, MD, D Litt (Oxon) was born 30th September 1864 and died 2nd November 1935. Dr. Paul Cassar wrote that Zammit 'is, in my view, Malta's most distinguished man'¹. He was scientist, doctor, chemist, archaeologist, writer and statesman, yet there has been no proper biography of him, no complete list of his publications. Few of his personal papers survive. It is difficult to trace his career and there seem to be few reminiscences about him. His contributions to our knowledge of brucellosis are almost forgotten.

He graduated MD from the University of Malta in 1889 and in the next year he and Dr. Fabrizio Borg founded *La Rivista Medica (The Medical Review)* and were its editors. From 15 March 1890 to February 1891 there were 24 issues, each of 8 pages. From March 1891 to January 1892 there were 22 issues each of 8 pages. It was wholly in Italian and consisted mainly of abstracts and commentaries of contemporary medical papers, many were signed T.Z. It would be interesting to know how he and Borg came to found the journal and how they managed the journal while Zammit was in France and England.

The Journal had a brief revival as *La Rivista Medica. Bollettino della Camera Medica di Malta* in 1922 under the editorship of A. Mizzi and P.P. Debono for the first issue and only P.P. Debono for the other three issues. Three parts of 74 pages of Volume I were made July 1922 to June 1923 and a part 4 in June 1924 making a total of 98 pages. Zammit contributed a paper about the Medical School of Malta (see below), but there is no indication that he had anything to do with this short revival.

There has been no complete list of Zammit's contributions. A booklet in Maltese was published for the exhibition in March 1990 at the Public Registry, Valletta. It contained lists of 44 publications in archaeology, 8 (all in Maltese) on education and literature, 11 on medicine, 1 on first aid, 2 on practical chemistry for students, 3 on water supplies and 11 others². The medical list is incomplete and many of the references are faulty. Recently thirty one of his stories have been published in an English translation³ and one of his archaeological works has been published in both German and English editions⁴.

Zammit's medical publications fall into three groups, those resulting from his routine work, two early epide-

miological reviews and those relating to brucellosis. I have included his three publications on water supply. His publications were brief, almost skeletal, at a time when the normal was for excessive detail. Several of his experiments were reported by others or in the *Annual Reports* of his department: he was very helpful to others. He was a close friend and colleague of Dr. Caruana Scicluna⁵.

An annotated list of the medical papers of Sir T. Zammit

- 1898 Zammit T. Two cases of poisoning with Carline Thistle. *BMJ* 1: 211-212.
- 1898 Zammit T. *Annual Reports in Public Health Department*. [The Report for 1898, Appendix T pages IV and V details the modified Widal agglutination test for Mediterranean fever and Zammit's experiments with the Micrococcus].
- 1900 Zammit T. Tuberculosis in the Maltese Islands: as it is and how it should be. p.16 plus 8 pages of discussion. *Malta Archaeological and Scientific Society*, November 1900.
- 1900 Zammit T. The serum diagnosis of Mediterranean Fever. *BMJ* 1: 315. [Zammit read a paper of this title to the Malta and Mediterranean Branch of the BMA on 19 May 1899].
- 1900 Zammit T. Milk poisoning in Malta. *BMJ* 1: 1151-1152.
- 1901 Zammit T. Falsifications observees a Malte pendant l'annee 1899. Extrait du Rapport de la Commission sanitaire de Malte pour l'annee 1899. *Revue Internationale des Falsifications* 14: 88-89.
- 1902 Zammit T. Mediterranean fever from a sanitary point of view. *Malta Archaeological & Scientific Society*. 23 May 1902. 16 pages plus 6 pages of discussion, including 3 by Zammit. [Also with the same title and very minor changes, but lacking the discussion: *Journal of State Medicine* 1902; 10: 399-412].

- 1902 Zammit T. [Notes of a case of leprosy treated with Dr. Carrasquilla's serum]. A summary of a paper read to the Malta and Mediterranean Branch of the BMA. *BMJ* 1: 1656.
- 1904 Zammit T. *Annual Reports in Public Health Department*. [Report for 1903-1904, Appendix Y page XXXIV details investigations of milk poisoning].
- 1905 Zammit T. Isolation of the *Micrococcus melitensis* from the blood. *Rept Fever Comm* Part I: 88-95. [Also *JRAMC* 1905; 5: 449-456, but not in the index for that year].
- 1905 Zammit T., Caruana Scicluna G. Intermittent Fever in Malta. *BMJ* 1: 711. [This was one of three papers read to the Malta and Mediterranean Branch of the BMA on 1 December 1904. 'A practical demonstration of blood films containing the parasites was then given'].
- 1905 Zammit T. A preliminary note on the susceptibility of goats to Malta Fever. *Proc Roy Soc* 76B: 377-378. [Also *JRAMC* 1905; 5: 341-342, but in the index under Malta Fever, not Mediterranean Fever].
- 1905 Zammit T. VI. A preliminary note on the examination of the blood of goats suffering from Mediterranean Fever. *Rept Fever Comm* III: 83. [This is a shortened version of the previous paper. The account of Zammit's experiments with two goats September 1904 - April 1905 are given by Bruce D. Introduction. *Rept Fever Comm* III: 3-4, 1905. Bruce included the information that the milk of the white goat fed the cultures in September 1904 was crammed with bacteria in June].
- 1906 Zammit T. An examination of goats in Malta, with a view to ascertain to what extent they are infected with Mediterranean Fever. *JRAMC* 1906; 6: 627-632. [NOTE not under Mediterranean Fever or Malta Fever in the index, but in index under Zammit, T]. [Also in *Rept Fever Comm* Pt IV: 96-100]. [Zammit's agglutination test for milk is given in both].
- 1906 Eyre JWH, McNaught JG, Kennedy JC, Zammit T. I. Report upon the bacteriological and experimental investigations during the summer of 1906. *Rept Fever Comm* Pt VI: 3-137.
- 1907 Zammit T. *Memorandum for the information of His Honour the Lieutenant-Governor*. Enclosure 3 dated 6 July in a memorandum from the Acting Governor to the Secretary of State 17 July 1907 [Proof in Contemporary Medical Archives Centre WTI/RST/G.14].
- 1908 Zammit T. Report on the goats ill with Mediterranean Fever bought in April, 1906 and on the kids born of some of them at the Lazaretto. *JRAMC* 1908; 10: 219-225. [A slightly different version of this paper was printed in the *Government Gazette* sometime after 14 March 1908. Report on the goats bought suffering from Mediterranean Fever in April 1906 and on the kids born of some of them at the Lazaretto. Contemporary Medical Archives Centre WTI/RST. G.15].
- 1908 At the First General Meeting of the United Services Medical Society, Malta Branch, Zammit made two contributions: he described the catchment area for the municipal water supply and spoke, later in the meeting, of the difficulty of obtaining reliable strains of paratyphoid. See Pollock, CE. Report of the First General Meeting of the United Services Medical Society, Malta Branch. *JRAMC* 1908; 10: 539-541.
- 1910 Zammit T. La reazione agglutinante nelle capre dal punto di vista dell'igiene. *Fatta al Diciannovesimo Congresso di Medicina Interna, Milano* Ottobre 1909. Roma 6 pages.
- 1913 Zammit T. Vibrions cholériques isolés de l'eau de mer. *Bull Soc Path Exotique* 1913; 6: 9-10.
- 1916 Zammit T, Rizzo Marich F. Coli-like microbes in water as an index of sewage contamination. *J State Med* 1916; 24: 76-81.
- 1918 Zammit T. Rats and parasites in plague epidemics. *Archivum Melitense* 1918; 3: 141-143. [Noted by Cassar p 189: Major WB Houghton & Sir T Zammit survey over 3 months of more than 1500 rats of which 15 are infected with plague. First observations on the natural history of rat in Malta].
- 1920 Zammit T. The medical school of Malta. *Proc Roy Soc Med* 1920; 13: 133-142. [Note: the History of Medicine Section was only sent to those subscribers who specially requested it and is thus missing in many library collections]. [A similar paper was published in *La Rivista Medica (new series)* 1922; 1: 2-10 with details of diplomas and certificates p 7-10].
- 1922 Zammit T. Undulant fever in the goat in Malta. *Ann Trop Med Par* 1922; 16: 1-10. [Pages 7 & 9 are 6 pictures of goats, pages 8 & 10 are captions. In this paper Zammit sets out the Zammit reaction for milk, Zammit's Test of 1905, in a footnote on p 3].
- 1926 Zammit T. Undulant fever. Paper read at meeting and reported in *Revue Tunisienne des Sciences Medicales* No 5 & 6.

- 1930 Zammit T. The last epidemic of ague in Malta. *Compte Rendue 2nd Congress International du paludisme, Alger 2*: 456-7. [This includes the work of Caruana Scicluna of 1905 with additional observations]. [The paper is reprinted without the references and with very slight differences in *The Malta Chronicle and Imperial Services Gazette* 26 October 1931, p 4. Neither account includes the 20 cases of malaria which occurred in 1919 around Salina: *Annual Report on the Health of the Maltese Islands* 1919].
- 1930 Zammit T, Debono JE. Immunization of the Maltese goat by means of cutaneous vaccination. *Lancet* 1930; 1: 1343-1344.
- 1933 Zammit T. Vaccination des chevres laitieres contre l'infection par la Brucella melitensis. *Hygiene Mediterranee Premier Congres International, Marseille* p 732-736.
- 1933 Zammit T, Debono JE. Immunization of the Maltese goat by means of cutaneous vaccination. *Lancet* 1933; 1: 134-136.
- 1930 Created Knight
- 1931 Officer d'Academie by the Minister of Public Instruction and Fine Arts, France [Univ Mel MS 120].
- He appears not to have been honoured by his own university, which he served for so long and with such distinction although a hall is now named after him. There is no statue or bust of him although there is a plaque in both Maltese and English in the entrance of the Ministry of Health, Merchants Street, Valletta, which reads:

**In this building
Sir Themistocles Zammit, MD
and other members of the
Mediterranean Fever Commission
successfully carried out
their research on the mode of
transmission of human Brucellosis
1904 – 1906**

Annual Reports in Public Health Department 1898-1920

The Reports of the Laboratory, Public Health Department by Zammit are mainly concerned with the routine work of chemical analyses. See 1898 and 1903-4 above for items about Malta Fever.

- 1912 Zammit T, Morris AH. *Report on the water supplies of Malta*, 1912. Malta p 13.
- 1924 Zammit T. Water supply of the Maltese Islands. *Archivum Melitense* 7: 1-46
- 1930 Zammit T. *The water supply of the Maltese Islands*. Malta: Govt Printing Office p 54.

Honours

- 1908 Corresponding Member of the Societe de Pathologie Exotique, the French society for tropical medicine.
- 1911 CMG by the British Government
- 1919 Honorary Fellow of the Royal Anthropological Institute.
- 1920 Doctor of Literature (hon. causa) University of Oxford Mary Kingsley Medal of the Liverpool School of Tropical Medicine on the opening of new laboratories. Awarded for his 'fundamental observation which led to the discovery that goats' milk was the source from which man contracted Undulant Fever'.
- 1926 Commander of the Order of Nicham Iftikhar, deuxième classe by the Bey of Tunis. Permis-

Bruce and Zammit appeared on a two pence stamp issued in 1964 to commemorate the first FAO Anti-Brucellosis Congress, held in Malta: this stamp also bears a modern microscope, not one that either Bruce or Zammit would have used. A second stamp for one shilling and six pence shows a Maltese goat and two flasks and three test-tubes. On 14 May 1994, Zammit appeared on the 14 cent stamp with an archaeological motive and a test-tube and flask: the latter two look rather ancient and it is doubtful if many people will realise their allusion to Brucellosis.

Sir David Bruce received no honours from Malta.

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References

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2. Cuschieri L. *Espozizzjoni dwar Sir Temistokle Zammit 1864-1935*. Malta: Dipartiment ta' l-Infommazzjoni 1990.
3. Ellul G (Trans). *The collected short stories of Sir Temi Zammit*. Polidano Press, Qormi, Malta 1995.
4. Mayrhofer K. *The prehistoric temples Hagar Qim and Mnajdra. Description. Prof. Sir Themistocles Zammit*. Interprint: Malta. German edition 1993, English edition

1994. Photos, drawings and introduction by K. Mayrhofer. [This description is based on a 1931 printed report. *The western group of megalithic remains in Malta*, which does not feature in the list of publications by Cuschieri, 1990].

5. Wyatt HV. Dr. G Caruana Scicluna, the first Maltese microbiologist. *J Med Biograph* 2000; in press June or August.

Proof in Contemporary Medical Archives Centre, Wellcome Medical History Library, London, WTI/RST/G.14.

Contemporary Medical Archives Centre. WTI/RST/G.15.

Library of the University of Malta, Melitensis Collection, Zammit documents MS 120.

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