

PSYCHOLOGICAL AND MEDICAL ASPECTS OF THE SIEGE OF 1565

By P. CASSAR, M.D., B.Sc., D.P.M.

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PART II.

The Holy Infirmary.

While these psychological trials were being endured by the besieged, adequate means for dealing with surgical and medical casualties had to be provided. At the time of the siege there were three hospitals in the Island. One of them was Santo Spirito Hospital of Rabat. This, however, hardly deserved to be called a hospital in those days, since it consisted only of a small church adapted as a hospital and containing only four beds. Apart from its inadequacy, it was situated outside the walls of Mdina and therefore out of reach of the defenders of that citadel.

Another hospital was maintained by the Italian Knights at Birgu. It occupied a large hall of their auberge situated near the Fort of St. Angelo on the foreshore of what is now called Dockyard Creek. We do not know what its compliment of beds was but it could not have been very large(71).

The third hospital was the Holy Infirmary, also at Birgu, erected by the Order in 1532, on that part of the foreshore of the town looking across Kalkara Creek towards Salvatore Hill. Its professional staff consisted of physicians, surgeons and an apothecary. Only "learned and experienced" doctors were engaged by the Order. Besides taking an oath that they would do their best for the welfare of the patient, the physicians undertook to abide, in their clinical work, by the writings of the most accepted medical authorities. The surgeons were not taken on the staff until they had been examined and approved by the physicians. The apothecary was in charge of the dispensary, but he too was under the immediate supervision of the physicians.

From the strategic point of view, the Infirmary presented a very grave problem because, owing to its exposed position, it was very vulnerable to enemy attacks.

As long as the Turks were occupied in reducing the Fort of St. Elmo, the Infirmary received no attention from them and it carried on its work without hindrance. Having captured the Fort of St. Elmo, the Turks opened their attack on Birgu and thus the infirmary found itself in the midst of one of the fiercest and most dangerous battle areas of the war. Owing to its position it came in the line of firing of the gun batteries mounted by the Turks on the Hill of San Salvatore on the other side of Kalkara Creek facing the hospital.

(71) DARMANIN DEMAJO, G., *Storia dell'albergia della lingua d'Italia*, in "Archivio Storico di Malta", Vol. I, Fasc. IV, p. 261.

The Infirmary relied for its defence from infantry attacks on those sections of the bastions of Birgu that were entrusted to the men of the langues of Castille, Germany and England — the last one being represented by only one knight, Sir Oliver Starkey, the secretary of the Grandmaster, who had under him the sailors and soldiers of the galleys(72). A few gates that led from the site of the Infirmary to the foreshore were blocked and parapets were constructed. These were entrusted to a group of soldiers under the command of the lay officers of the Infirmary(73). As the Grand Hospitaller was away from Malta at the time(74) and as his lieutenant was in charge of the post of the French langue(75), the officers in charge of these parapets must have been the two "prodomi"(76) and the Head Infirmaryman(77). Moreover, a line of chain entanglements and underwater obstacles was stretched along the coast from Fort St. Angelo to the post of Castille to prevent the Turks from making a landing on the foreshore of the Infirmary(78).

From the beginning of the siege of Birgu, the bastions defending the Infirmary came within range of the enemy artillery(79). The battering that they received was so severe and incessant that a dangerous breach was made in them by the end of July and from this day onwards the fate of the Infirmary hung precariously in the balance. By the 1st of August the enemy was only 20 or 30 paces distant from the breach in the fortifications. The situation became increasingly critical and grave. By the 7th August the first Turkish soldiers had penetrated the breach(80), but they were repulsed after heavy fighting during which La Valette himself took part and was wounded. Another onslaught on the approaches of the Infirmary was opened on the 20th August. The Turks caused further damage to the bastions at the post of Castille and nearly advanced into Birgu(81). The ranks of the defenders had been seriously depleted and La Valette did not dispose of enough men to replace his losses at this at this post. So he thought of the men that were lying wounded at the nearby Infirmary and resolved to induce as many of them as possible to return to the fight in spite of their injuries. He proceeded to the Infirmary and ordered all the walking patients to assemble in the Great Ward; then after showing them the wound that he had sustained in his leg, he told them that he, too, needed rest in bed for his injury, but realising the extreme gravity of the situation he preferred to die fighting rather than wait to be slaughtered in the Infirmary by a relentless enemy. His words produced the desired effect for all those who could carry themselves went to the parapets to join the defenders, and only the dying and those who could not support themselves on their legs remained behind in the Infirmary(82).

(72) SANMINIATELLI ZABARELLA, *op. cit.* p. 166.

(73) BOSIO, I., *op. cit.* p. 518.

(74) BOSIO, I., *op. cit.* p. 650.

(75) BOSIO, I., *op. cit.* p. 517.

(76) BOSIO, I., *op. cit.* p. 608; SANMINIATELLI ZABARELLA, *op. cit.* p. 160.

(77) SANMINIATELLI ZABARELLA, *op. cit.* p. 160.

(78) SANMINIATELLI ZABARELLA, *op. cit.* p. 372.

(79) VERTOT, *op. cit.* p. 17.

(80) SANMINIATELLI ZABARELLA, *op. cit.* p. 487.

(81) SANMINIATELLI ZABARELLA, *op. cit.* p. 520.

(82) GIGLIO, F., *op. cit.* p. 197.

After a fight lasting a whole day the Turks were again thrown back. Other attacks were launched against the approaches of the Infirmary but none of them succeeded in causing any serious damage to the hospital.

Reception of Casualties.

It was under these disadvantageous conditions that the Infirmary had to carry on its work during the siege. Immediately the operations of war were started, the Infirmary, besides discharging all the functions of a general hospital, was called upon to assume the additional and more onerous role of a casualty hospital.

The first major encounter with the enemy took place on the 21st May outside the gates of Birgu. On that day the first batch of wounded men entered the infirmary. There were 150 of them(83). Two days later the Turks started their attack on Fort St. Elmo and more wounded men poured in to the infirmary from this fort. Sometimes as many as 60 casualties were admitted in one day(84). The wounded were conveyed from St. Elmo in boats that plied under cover of darkness between the fort and Birgu(85) across the harbour. By the 5th June, however, the Turks begun attacking these boats by firing at them from the shore, hitting some of them and wounding the oarsmen(86). On one occasion a wounded knight was killed during transit by an arquebus bullet(87).

Soon the infirmary was unable to cope with the numerous casualties and sick brought to it, so that by the 6th of June the hospital had become full with 200 patients and the patients were being distributed among the various auberges and also in private houses(88). At this stage two circumstances intervened which slowed somewhat the rapid rate of admission of casualties into the hospital. First, owing to increased enemy activity, boat transport across the harbour between the fort and Birgu became extremely risky and, therefore, less frequent after the 16th June. Secondly, because of these transport difficulties, the losses of the garrison of the fort could not be replaced. It was, therefore, resolved that those soldiers who were not seriously wounded but who could no longer continue the fight should still remain in the fort and do all the work that was needed behind the fighting lines. The men were persuaded not to abandon the fight except when they sustained fractures or were feeling exhausted from excessive blood loss(89). These arrangements had the effect of diminishing somewhat the volume of the stream of casualties from the fort. Besides, it was ordered that only those who were very severely wounded were to be

(83) SANMINIATELLI ZABARELLA, *op. cit.* p. 185.

(84) SANMINIATELLI ZABARELLA, *op. cit.* p. 298.

(85) BOSIO, I., *op. cit.* p. 539.

(86) SANMINIATELLI ZABARELLA, *op. cit.* p. 239.

(87) BOSIO, I., *op. cit.* p. 564.

(88) BALBI, F., *A true account of all that took place in the Island of Malta in the year 1565*, Published in 1568. Translated by H. A. Balbi and published in the "Sunday Times of Malta" of 2nd May 1937 to 25th July 1937.

(89) SANMINIATELLI ZABARELLA, *op. cit.* p. 250.

transported to the Infirmary(90). La Valette attached the greatest importance to this provision and he was not prepared to tolerate any departure from it as shown by the following incident. One day he saw among the wounded men from St. Elmo, Captain Della Cerda, who had just reached the Infirmary from the fort to be treated for his wounds. The Grandmaster, however, was not satisfied that Della Cerda's wounds were of so grievous a nature as to justify his leaving the fort. He, therefore, sent the captain to prison to show his displeasure and to set an example to others(91).

During the seige of St. Elmo, the number of casualties that were taken to the Infirmary from the fort was 300(92). Those who could not be conveyed to the Infirmary owing to transport difficulties were placed in the chapel of St. Elmo but when this fell into the hands of the enemy the casualties collected in the chapel were killed by the Turks(93).

The Grandmaster was well aware that the Infirmary had become too small to accommodate all the medical and surgical patients that needed hospital treatment. Following the loss of St. Elmo, therefore, and in anticipation of the siege of Senglea and Birgu, he issued a "bando" in the last week of June to remedy this state of affairs. Among the steps taken was the evacuation of a number of houses in Birgu that were well protected from enemy missiles. They were turned into emergency hospitals for the sick and wounded among the soldiers and civilians of the two towns. He also assigned to each hospital the number of chaplains and surgeons which he deemed necessary and the drugs with which they were to be provided (94). Subsequent experience fully justified these measures. In fact the number of casualties during the following two months was far greater than that during the siege of St. Elmo. There were instances when the number of wounded men that had to be treated was 100, and even 350 and 400 in a single day, while on one occasion, on the 15th July, as many as 600 men were wounded in one day at Senglea(95).

Before the beginning of the seige, stores of medicinal drugs had been laid aside, (96), but if we are to believe the Spanish renegade, Francesco de Aquilar, these were no longer obtainable at the Infirmary and at the pharmacies by the beginning of August, so that the wounded men were dying as the result of the scarcity of medicaments that were deemed necessary for the treatment of wounds(97). The historian of the Order does not contradict de Aquilar; on the other hand he states that the renegade's statements "were founded on a basis of truth"(98). Besides we know

(90) SANMINIATELLI ZABARELLA, *op. cit.* p. 290.

(91) SANMINIATELLI ZABARELLA, *op. cit.* p. 240.

(92) SANMINIATELLI ZABARELLA, *op. cit.* p. 333.

(93) BOSIO, I., *op. cit.* p. 574.

(94) SANMINIATELLI ZABARELLA, *op. cit.* p. 343.

(95) SANMINIATELLI ZABARELLA, *op. cit.* p. 425.

(96) BOSIO, I., *op. cit.* p. 499.

(97) BOSIO, I., *op. cit.* p. 626.

(98) BOSIO, I., *op. cit.* p. 627.

that a boat loaded with medicinal preparations which was sent to Malta towards the end of July by the Viceroy of Sicily never reached the Island as it was captured by the Turks(99). We are, therefore, justified in believing that if drugs and medicines were not altogether unobtainable, they must have started to become scarce though not to such an extent as to preclude the embalming of the body of the "mastro di campo", Melchior de Robles, whose death occurred in those days(100).

It is not known what hospital arrangements were made at Mdina. That some kind of hospital service was organised is proved by the request of the Friars Minor Observants, dated 21st August 1566, addressed to the Jurats of Mdina, in which the friars asked to have back the beds which they had lent for the use of the wounded to the Mdina University during the siege(101). Owing to the fact that the country side was in the hands of the Turks only an occasional wounded man could reach Birgu from Mdina safely to receive treatment at the Infirmary(102), so that when casualties were numerous they had to be treated at Mdina as must have happened on the 7th August, when following an encounter with the enemy twenty-nine horsemen were conveyed to the citadel more or less gravely wounded (103).

It is difficult to know the number of casualties suffered by the Order and the Maltese during the siege, but according to one estimate about 6,000 men under arms died from wounds and disease, while 2,000 civilians and slaves also perished from the same causes(104).

Types of Wounds Sustained.

The various types of wounds sustained by the belligerents may be classified under the following headings:—

1. Bullet wounds caused by projectiles fired from the arquebus which was the firearm most in vogue at the time. When the bullets entered a cavity such as the head and chest, they were attended by a fatal issue(105).

2. Incised, punctured and penetrating wounds were produced by blows from swords (single or double handed ones), scymitars or sabres, halberds, pikes and arrows.

3. Lacero-contused wounds were numerous. They were caused mostly by stones which were either thrown at the adversary by the defenders from the bastions, or else were scattered in the form of splinters by the impact of the cannon balls that smashed the rocks or the stone work of the fortifications(106). Fractures of

(99) CURIONE, C. S., *Nuova storia della guerra di Malta* (1565). Translated by E. F. Mizzi. Rome, 1927, p. 111.

(100) BOSIO, I., *op. cit.* p. 633.

(101) MIFSUD, A., *Un cenno al 1565 nel 1915*, in "Archivum Melitense", July 1917, p. 231.

(102) BOSIO, I., *op. cit.* p. 547.

(103) SANMINIATELLI ZABARELLA, *op. cit.* p. 495.

(104) SANMINIATELLI ZABARELLA, *op. cit.* p. 603.

(105) BOSIO, I., *op. cit.* p. 540.

(106) BOSIO, I., *op. cit.* p. 637.

the limbs were also produced by this means. Disfiguring wounds of the face, and head injuries resulted from the hurling of iron balls studded with pointed nails into the face of the adversary(107).

4. Eye injuries were caused by arquebus bullets and by arrows.

5. Burns were suffered almost exclusively by the Turks and resulted from the following weapons devised by the Order's troops:—

(a) Fire-hoops ("cerchi di fuoco"). These were large wooden hoops covered with flax and coated with an inflammable substance. After the hoops were set on fire, they were hurled horizontally at the enemy from the height of the bastions. These hoops were so wide that they could encircle two or even three men. This kind of weapon was especially vulnerable for the Turks who went into battle clad in voluminous and light clothing that very easily caught fire. Once they found themselves trapped inside these fire-hoops, the Turks had no way of escape from the fire except by throwing themselves into the sea to extinguish it (108).

(b) Fire-pipkins ("pignatte di fuoco"). These were half-baked earthenware pots containing an incendiary mixture made of gunpowder, camphor, salt-petre and pitch. They were provided with a wick and, after this was lighted, the pipkins were thrown among the attackers. On hitting a hard object, the vessel broke and the mixture caught fire(109). More than 30,000 of these pipkins were used during the siege. The "trombe di fuoco" and the "picche di fuoco" were similar contraptions, consisting of hollow cylinders of wood filled with inflammable material.

(c) Another invention was the smearing of arquebus bullets with lard before they were fired. By this means the bullets retained so much heat when fired that when they hit the adversary, besides producing the usual gunshot wound, they also burned his clothing and set him on fire.

6. A few casualties, all of them fatal, are worth recording because they happened in a rather unusual way. A cannon ball fired from the Turkish batteries on Corradino Hill, smashed its way through some houses of Senglea and then passed over to Birgu. Here it ended its course by crushing into the house of Fra Luis Cortit, a Catalan knight. The knight, who happened to be at home at the time, was hit by the ball which amputated away both lower limbs. He died soon after(110).

Acute heart failure from excessive exertion was responsible for the death of a few Christian soldiers while they were pursuing, in hot sunshine, a number of Turks, some of whom also fell dead from the same cause.

A few cases of heat stroke with psychotic manifestations occurred at the beginning of September, which was exceptionally hot that year.

Treatment of Wounds.

Whether some form of anaesthesia was employed during operative procedures in Malta at the time of the siege of 1565 is not known. A few primitive methods of

(107) GAUCI, G., *op. cit.*, p. 180.

(108) BOSIO, I., *op. cit.* p. 555.

(109) BOSIO, I., *op. cit.* p. 562.

(110) BOSIO, I., *op. cit.* p. 612.

anaesthesia had, however, been devised in Europe since the early middle ages. These ways of producing anaesthesia remained the only ones in the field of surgery until the beginning of the nineteenth century. There was the narcotic sponge ("spongia somnifera"), which after immersion in a solution of mandrake, belladonna and other drugs, was pressed over the mouth of the patient, who as a result of sucking in the solution, lost consciousness and fell into a deep sleep. The so called "hammer-stroke" was also practised. The patient's head was encased in a sort of helmet on which the surgeon delivered a good blow with a wooden hammer in such a way as to knock the patient unconscious and thus enable him to go through the operation without feeling pain (111). Insensibility to pain was also produced by compression of the carotid arteries — a measure that results in syncope (112). It is not improbable that the surgeons working in Malta in 1565 were familiar with these methods of anaesthesia and that they made use of all or some of them.

The surgical management of injuries at this time had just started to be conducted on rational lines. Wounds were washed with salted water as a first aid measure (113). Splinting and traction, in the case of fractures, were used; depressed fractures of the skull were treated by elevation of the detached fragment of bone and trephining was resorted to when necessary.

Wounds involving the soft tissues were sutured and the ligature of vessels had begun to replace the cautery as a haemostatic. After suturing, the wound was dressed with tow or with wool, soaked in a medicament. When a patient sustained a wound of the mouth which rendered the oral intake of food impossible, the necessary nourishment was administered by means of nutrient enemas.

The pharmacological treatment of wounds, on the other hand, was not so advanced. Like his modern colleague, the sixteenth century surgeon aimed at the prevention of pus formation and at the promotion of the closure of the wound without scarring; but the means he employed to obtain these results were still based on the misconceptions of Hippocrates, Galen and Avicenna. His physiology was still of a primitive kind and he acted on such notions as that the liver distributed the blood to the limbs, that the lungs gave origin to the veins and the heart to the nerves. (113a).

It was thought that the healing of a wound was due to the "natural heat" of the body, and the degree of "humidity" and "softness" of the part offended. The sex and age of the patient, as well as the season of the year, were also believed to influence the union of wounds in so far as they determined the amount of "humidity" and "softness" of the patient's tissues. Thus the bodies of children and women were retained to be humid and soft, while those of old people, travellers and labourers were hard and dry. As a consequence of this way of thinking various pharmacological agents, to which were attributed different degrees of humidity and astringency, 23 were employed to aid the healing of wounds. When treating injuries of the soft tissues desiccating or astringent drugs were to be used but only

(111) PARENTI, G. C., *Leggende e nozioni sull'evoluzione dell'anestesia*, in "Gazzetta Sanitaria", February 1951, p. 72.

(112) GUTHRIE, D., *A History of Medicine*, London, 1947, pp. 108, 116, 302.

(113) PRESCOTT, G., *op. cit.* p. 120.

(113a) FIORAVANTI, M. L., *La chirurgia*, 1582, Venetia, p. 16.

in "moderate strengths" because it was held that very strong concentrations of these agents would produce too much dryness and this in turn would lead to much scarring. High concentrations of these substances, however, were not contra-indicated in old standing and indolent wounds.

The medicaments in common use were:—

1. White of egg. This was regarded as being the most beneficial of the "simple medicaments", because it promoted union by its bland drying action.

2. Black wine was also a favourite. It was applied to all types of wounds but being "cold and earthy" it was especially indicated for fractures. When taken internally wine creates "good blood" and when applied externally it dries, strengthens the injured part and prevents inflammation.

3. Other "simple medicaments" were oil of roses, honey of roses, digestive of turpentine and yellow of egg. The wounds were dressed with these substances in the form of ointments, cataplasms and emplastra; or else the wound cavity itself was filled with one of them.

4. Oil by itself was contraindicated as it was observed that it prevented union and produced putrefaction and foul smells. When mixed with wine, however, it was alleged to exercise a beneficial effect because in combination with wine it lost its harmful properties while it neutralised the astringency of wine and relieved pain. Such mixture of two or more "simple medicaments" were called "composite or compound" medicaments.

5. Other compound medicaments in use were:— (a) Mixture of oil, wax and rust; (b) emplastra of oil, wax and litharge — especially recommended for fistulae, and indolent ulcers; (c) mixture of yellow of egg with oil of roses and digestive of turpentine.

6. Ointments containing ingredients derived from such plants as "ocymum basilicum", honeysuckle, "betonica officinalis" and various species of "centaurea" also formed part of the surgeon's pharmacological armamentarium.

With our present knowledge of asepsis it is natural to expect that such forms of treatment led to fatal results, but it is recorded that there were patients who did survive in spite of treatment. Indeed "many" of those who sustained wounds during the defence of St. Elmo and who were thus treated at the Infirmary recovered from their injuries. Moreover, they seem to have suffered from no serious residual disabilities because following their discharge from hospital they were able to take an active part in the fighting during the siege of Birgu and Senglea(114).

Commanders Wounded.

One outstanding feature of the siege was the infliction of injuries on all the chief commanders in the field. The first to be wounded, and the only one to die from his injuries, was Dragut, the renowned military engineer. On the 18th June he was hit on the head near his right ear(115) by a piece of stone. This had been splintered off from the stone-work of the Turkish batteries on Mount Sceberras by

(114) BOSIO, I., *op. cit.* p. 575 & 680.

(115) BOSIO, I., *op. cit.* p. 566.

the impact of a cannon ball fired from Fort St. Angelo(116). Dragut fell to the ground unconscious. There were no external signs of fracture of the skull but he lost blood from his nose and mouth. His breathing became difficult and stertorous. He was conveyed to his tent at the Marsa where he was treated by a Christian slave who had some knowledge of medicine(117). In spite of the care with which he was surrounded he died five days later without regaining consciousness. On the 24th June his body was taken to Tripoli for burial(118).

Piali Jasha, who was in charge of the naval operations, was struck on the head on the 25th May by a fragment of stone detached from a rock that had been shattered to pieces after it was hit by a projectile during the siege of St. Elmo. His turban, however, diminished the impact of the blow and he escaped with a light injury. In fact he only remained dazed for about an hour(119). The historian Bosio gives a different account of this incident. He states that Piali was thrown to the ground from his horse by the air currents generated by the passage of a cannon ball that went past him. He also states that he remained dazed for some days(120).

Mustafà Pasha, a veteran of 70 years who commanded the land forces, was injured on the 20th August while he was leading the assault on Senglea. He was struck on the head by a spent bullet which made him reel into a trench and rendered him unconscious for some hours. However, he suffered no serious ill-effects(121). According to another version he was wounded in the face by a stone but the injury was so slight in nature that he was not obliged to retire from the fight(122).

La Valette was wounded on the shin by an arquebus bullet on the 7th August. The jambes that he was wearing warded off the missile that otherwise would "certainly have fractured the bone"(123). Bosio writes that the injury was caused by a piece of stone and not by a bullet. He adds that La Valette went about wearing a black taffeta stocking over his bandage and that he limped for many days and had to use a walking stick for support(124).

The Turkish Medical Services in the Field.

Of the Turkish medical organisation during the siege we know very much less than we do about the Order's services. The Turks set up their main camp at Marsa(125). This site had the advantage of being supplied with a spring of water which, however, proved to be inadequate for the requirements of the Turkish army so that the soldiers had to convey water from St. Paul's Bay and even from Gozo(126). At the Marsa they also established their hospital and their cemetery in the

- (116) GIGLIO, F., *op. cit.* p. 84.
- (117) SANMINIATELLI ZABARELLA, *op. cit.* p. 313.
- (118) BOSIO, I., *op. cit.* p. 576
- (119) SANMINIATELLI ZABARELLA, *op. cit.* p. 211.
- (120) BOSIO, I., *op. cit.* p. 605
- (121) SANMINIATELLI ZABARELLA, *op. cit.* p. 522.
- (122) BOSIO, I., *op. cit.* p. 679.
- (123) SANMINIATELLI ZABARELLA, *op. cit.* p. 488.
- (124) BOSIO, I., *op. cit.* p. 644.
- (125) SANMINIATELLI ZABARELLA, *op. cit.* p. 185.
- (126) SANMINIATELLI ZABARELLA, *op. cit.* p. 201.

vicinity of the Villa and garden of the Grandmaster where Mustafâ had his headquarters(127). The wounded and the sick were accommodated in huts set up among the trees.

A map published in Venice in 1565 by Domenico Zenoi, shows another "tent hospital" for the reception of dysentery patients on the shore of Marsamxett Harbour roughly midway between Pietà and Manoel Island.

It is very difficult to estimate the number of wounded men that passed through these field hospitals as only approximate figures are available. Generally the historians of the time satisfied themselves with such generic expressions as "an extraordinary number of wounded"(128) or "there was an immense number of wounded"(129); but sometimes definite figures are given. Thus we are told that after heavy assaults 1,200 or 2,000 and even 4,000 casualties were suffered by the Turks in one single day(130). The siege of St. Elmo alone cost them some 7,000 wounded(131). By the 24th June about one fourth of the Turkish army was lying ill or wounded(132).

From the Marsa hospital, those patients who had no prospects of returning to combat duties were evacuated by sea to Tripoli. On one occasion (13th June) four galley loads of sick and wounded soldiers were removed to North Africa(133). The transport of casualties to this base, however, does not appear to have been effected without a hitch. In fact the speed of their evacuation did not keep pace with the rate of incidence of sickness and wounding. To make matters worse for the Turks, the Marsa hospital was attacked by the cavalry of Mdina on the 28th July. The Turkish guards were taken by surprise and the Mdina cavalry invaded the hospital encampment causing havoc and death among the patients. The self-preservative reactions of the sick and wounded aroused by the threat of destruction have been vividly described. "Those who were lying almost dead in their beds, and who a little while previously were feeling so weak that they could hardly support themselves on their legs, fled from the scene with such speed as if they had never been ill and run away as swiftly as healthy men". In their flight they created such a confusion and made so much noise that their panic reached that section of the army that was, at the time, hotly engaged in attacking Senglea and Birgu(134).

These events remind us that in the sixteenth century belligerents recognised no claims of common humanity and that the fallen soldier had as yet not been granted the privilege of immunity from further enemy attacks. Recriminations were savage and mutual. In 1560, for instance, during the battle for the Island of Gerbe, it was the misfortune of the Christian sick and wounded to be cut to pieces by the victorious Turk(135), while we have already seen how the wounded found in the chapel of

(127) BOSIO, I., *op. cit.* p. 698.

(128) SANMINIATELLI ZABARELLA, *op. cit.* p. 236.

(129) SANMINIATELLI ZABARELLA, *op. cit.* p. 425.

(130) SANMINIATELLI ZABARELLA, *op. cit.* p. 290, 471, 491.

(131) SANMINIATELLI ZABARELLA, *op. cit.* p. 333.

(132) SANMINIATELLI ZABARELLA, *op. cit.* p. 351.

(133) SANMINIATELLI ZABARELLA, *op. cit.* p. 283; BOSIO, I., *op. cit.* p. 557.

(134) BOSIO, I., *op. cit.* p. 629.

(135) BOSIO, I., *op. cit.* p. 439.

St. Elmo were put to the sword when the Turks invaded that fort. In those days the soldier showed no respect for his adversary, not even when the latter was engaged in a mission of mercy. Thus after one encounter during the seige, those Turks who after the battle went about picking their dead, were not spared by our snipers who shot as many of them as they could in what the Order's historian complacently calls a "piacevole e sicura caccia" (136).

By the end of August the Marsa hospital had become too small to house all the sick and wounded; for this reason the galleys at anchor in Marsamxett harbour were adapted as hospitals. The poops of the galleys were reserved for the Turkish soldiers, while the Christian slaves who were taken ill were accommodated among among the benches of the oarsmen (137). But this measure afforded only a short respite, as the galleys soon became filled with patients. Not only the hospital organisation but also the transport of the wounded from the scene of battle to the field hospital seem to have broken down at this period. In fact, casualties were conveyed only as far as the ordinary camps while many others were not even picked up but were left in the trenches which, owing to the rain that had fallen on the previous day, were soon turned into muddy hollows. Here the Turkish wounded were abandoned dying "like dogs in tens a day" and forming a horrible spectacle for their comrades (138).

Apart from the usual surgical cases, the Turks had to contend with the widespread occurrence of infectious illness among their troops. The Marsa enjoyed the reputation of being a very unhealthy area notorious for its "pestiferous atmosphere" (139). Moreover, the water springs and cisterns of the Marsa and other parts of the Island that had been abandoned by the defenders were previously poisoned by the Order's chief physician, Camillo Rosso, on instructions received from the Grandmaster. The poisonous concoction was made up of hemp, wheat, arsenic and other ingredients which had been kept ready for the purpose (140). It is alleged that this water poisoning produced serious illnesses among the Turks and caused the death of many of them until they detected its nature and resorted to its decontamination (141). One estimate puts the number of deaths from this cause at about 800 Turks (142).

In an age when no one knew how infectious diseases were propagated and how their spread could be prevented, it is not surprising to find that in an army of 90,000 men illness should take a heavy toll. The occurrence of disease was ascribed to atmospheric changes, such as the excessive diurnal heat followed by the nocturnal humidity of the Maltese summer, to the poisoning of the air by the odours of

(136) BOSIO, I., *op. cit.* p. 645.

(137) CURIONE, C. S., *op. cit.* p. 102-103.

(138) SANMINIATELLI ZABARELLA, *op. cit.* p. 552.

(139) BOSIO, I., *op. cit.* p. 698.

(140) A similar stratagem had been employed by the Moslems against the Christian army that had landed on the Island of Gerbe in 1560 when the water in the wells was rendered bitter and undrinkable by the immersion into it of aloe plants. BOSIO, I., *op. cit.* p. 423 & 426.

(141) GIGLIO, F., *op. cit.* p. 10; BOSIO, I., *op. cit.* p. 514.

(142) VIPERANO, G. A., *op. cit.* p. 17.

excreta and the emanations from the many unburied or badly interred corpses, and to the scarcity of water(143).

Illness appeared among the Turkish troops soon after their landing in the Island. On the 27th May a Spanish renegade from the Turkish side informed the Grandmaster that, apart from shortage of water, the Turks were suffering from dysentery which was causing havoc among them(144). It was later learned that "putrid fevers" and "tifo" were also claiming their victims(145). It is impossible to determine whether "tifo" was typhoid or typhus as no distinction had yet been drawn between these two diseases(146) and no description of the clinical features of the diseases that afflicted the Turks has come down to us; but it would not be surprising if we were to discover that both these diseases were prevalent among them.

These illnesses first appeared in the Marsa hospital among the wounded themselves and then spread to attack the healthy troops. They prevailed throughout the duration of the siege(147) and their incidence and severity were so high that they threatened to decimate the Turkish soldiers more than the operations of war; but the end had come.

Post-war Fears.

The long awaited relief force from Sicily that had been promised to the Grandmaster was on its way to Malta. The news of its safe arrival in the Island on the 8th of September was received with great rejoicings by the defenders. The siege was raised and men and women thronged the streets. "Some of them wept for joy and raising their hands to heaven thanked God for their deliverance; others run about shouting — 'Help is at hand! Victory! Victory!' — while others, still, embraced and kissed all those whom they happened to meet." (148). In their jubilant excitement, neither the Knights nor the people thought of falling upon the retreating enemy so that the Turks had the time, between the 7th and the 13th September, to embark both men and material and sail out in good order from Marsamxett Harbour and St. Paul's Bay(149).

In spite of the several Turkish attempts to alienate the Maltese from the Knights, the inhabitants of this Island remained steadfast in their loyalty towards the Order. To their great credit it has been recorded that while men of nearly every nationality had deserted to the Turks not one single Maltese had ever done do(150).

(143) SANMINIATELLI ZABARELLA, *op. cit.* p. 278.

(144) SANMINIATELLI ZABARELLA, *op. cit.* p. 207.

(145) BOSIO, I., *op. cit.* p. 612.

(146) The clinical differentiation between these diseases was established by Sir William Jenner (1815-1898) of the London Fever Hospital in the 19th century. "British Medical Journal" of 23rd May 1938 p. 192.

(147) SANMINIATELLI ZABARELLA, *op. cit.* p. 440 & 513.

(148) BOSIO, I., *op. cit.* p. 694.

(149) ZAMMIT, Them., *Malta, the Islands and their History*, Malta, 1926, p. 141.

But though the Islanders and the Knights succeeded in repelling the Turks, they did so at very great cost. When the people became sober after the exultation of victory they realised what an immense price they had paid for their deliverance — the countryside impoverished and pillaged, the villages destroyed, the water supply of the two towns reduced to disgusting muddy fluid and the population reduced to nearly 20,000 souls(151).

For many months following the end of the siege, the Infirmary remained full of war casualties, to which were added those men of the relief force that had fallen ill. They were so numerous that they had to be accommodated in private houses(152). These men had fallen ill in spite of the precautions taken to prevent the outbreak of serious illnesses. The Knights had been so much impressed by the havoc wrought by disease in the Turkish army that when the relief force from Sicily landed in Malta, the Grandmaster refused to allow the troops to encamp anywhere in the districts round Santa Margherita, St. Salvatore Hill, Corradino and Marsa where the Turks had settled. He was afraid that, owing to the large number of Moslems that had fallen ill and had died in these areas, these localities would become the foci of some vast epidemic if they were to be occupied again by a large body of troops(153). Moreover, signs were not wanting to arouse fears and suspicions of an impending outbreak of pestilence as the causes of disease were then understood. In fact the dogs of the countryside had run wild and not finding enough to eat in the deserted villages and farms, started disinterring the superficially buried corpses and eating their flesh. Besides, the Birgu had become invaded by such large numbers of flies that the inhabitants could not defend themselves from these insects, so much so that in the end it was found necessary to destroy them with gunpowder fire(154).

In view of the insanitary conditions that prevailed during the siege, the possibility of the existence of scabies, vermin infestation and tuberculosis naturally arises. One finds no reference to these diseases in the writings of the period, but it is not inconceivable that they may have occurred since we know that the factors fostering their development and spread were all present such as the massing of large number of people under unhygienic conditions, neglect of personal cleanliness due to shortage of water and ignorance of the risks of dirty surroundings.

The discomforts endured during the siege and the devastation that spread around them, made an impression in the minds of the people that was not readily forgotten; so that when, in the spring of the following year, rumours of another Turkish invasion were again current, the population was not in a fit psychological state to face another war. They were still war-weary and sick of the hardships and sights of war. Their immediate reaction was to abandon the Island. Nearly all the families who had the necessary means left the Island in the months of

(150) BOSIO, I., *op. cit.* p. 546. Other historians, however, disagree with Bosio. Indeed BALBI, "Sunday Times of Malta" of 20th June 1937 p. 15, and GAUCI, *op. cit.* p. 90, state that there was a Maltese renegade.

(151) BOSIO, I., *op. cit.* p. 776.

(152) BOSIO, I., *op. cit.* p. 710.

(153) SANMINIATELLI ZABARELLA, *op. cit.* p. 585.

(154) BOSIO, I., *op. cit.* p. 710.

March and April and repaired to Sicily. They had declared, according to the Order's historian, that they preferred to go begging round the world than have to go through the sufferings of the previous year. Many of the descendants of the Greeks and Rhodians that had followed the Order to Malta in 1530 and settled here also left the Island together with the Maltese families. They went to Saragossa, Modica, Alicata and Girgenti. Their number must have been considerable for it has been said that these places had all the appearance of being colonies of the inhabitants of Malta(155).

Fear is highly infectious and from the people this escapism spread to the highest ranks of the Order itself. In fact it was seriously debated among the Knights whether the Grandmaster and his Council should remain in Malta in the event of another Turkish invasion(156). It was only when the Turks opened their attack against Hungary that calm returned to the Island for every one felt that the Turkish preparations were not directed against Malta.

To us who view the happenings of 1565 at a distance of four centuries, the siege has an air of finality. To the people of those days, however, there was nothing to assure them that it was going to be the last of its kind. Perhaps none better than us of to-day can understand their post-war predicament for their experiences were not dissimilar to our present situation. Like them we have lived very close to death through a long siege; like them we had the better of our adversaries; and like them no sooner than the war was over, we were and still are assailed by fears of another war. But here the similarity ends, for while we can look back at their anxieties and see how they triumphed over them, we of to-day can only very dimly visualise our future trials but can get no glimpse of the manner of their ending.

(155) BOSIO, I., *op. cit.* p. 737.

(156) BOSIO, I., *op. cit.* p. 738.