

Valdoltra and Osteoarticular Tuberculosis among Slovenians – The 100th Anniversary of the Valdoltra Hospital

Zvonka Zupanič Slavec and Senta Jaunig

University of Ljubljana, Faculty of Medicine, Institute for the History of Medicine, Ljubljana, Slovenia

ABSTRACT

The 100th anniversary of the hospital in Valdoltra, Slovenia, on the northeastern Adriatic coast near the Italian frontier – where borders have frequently changed (the town has belonged to Austria-Hungary, Italy, Yugoslavia, and Slovenia) and which experienced military occupation in the interwar period – offers an opportunity to review the professional path of this institution. The hospital was established in 1909 as an act of charity by the Trieste Friends of Children Society due to the high incidence of scrofula as well as bone and extrapulmonary tuberculosis among Trieste children. With 270 beds, it provided medical assistance to sick children and also later to adults. After the First World War, its management was assumed by the Italian Red Cross, which built an additional wing in 1934 and increased the hospital's capacity to 340 beds. After Italy's capitulation, German soldiers occupied the hospital and left it in shambles at the end of the war. In September 1945, the hospital was renovated and taken over by the Slovenian healthcare system; 400 beds were again available for treating bone tuberculosis patients. This did not last for long. By 1947, after the Treaty of Peace with Italy was signed and Valdoltra became the central Yugoslav institution for treating bone tuberculosis, the hospital had to be relocated to Rovinj, Croatia due to the political division of the Trieste region into Zones A and B. Only in 1952 did the hospital return to Valdoltra and continue its mission. In the twentieth century, tuberculosis was treated similarly everywhere until antitubercular agents were discovered. At first, conservative climatic and hygiene-dietary methods, orthopedic aids, plaster corsets, and physiotherapy were used to treat bone tuberculosis. This was followed by surgical treatment, which came into vogue after 1945, when it was supported by antibiotic treatment, and (postoperative) physiotherapy and rehabilitation. Chemotherapeutic agents and preventive outpatient BCG-vaccination proved successful in curing bone tuberculosis and other forms of tuberculosis, and the number of consumptive patients continued to decrease. The Valdoltra hospital has preserved its tradition of treating osteoarticular pathologies and has been the main Slovenian orthopedic hospital since 1961.

Key words: tuberculosis, osteoarticular, treatment, history of medicine, tuberculosis hospital, social diseases, Valdoltra, Slovenia

Introduction

Since its very beginnings, both the owners and intended use of the Valdoltra hospital have changed several times. This was the result of the political situation and the hospital's location at the border. This article presents the changes and factors that influenced the development of this institution and the treatment of osteoarticular tuberculosis, and shows the hospital's importance – initially for affected children in the Slovenian coastal region and, later on, for all of Yugoslavia. The owners and patient structure of the Valdoltra institution changed in line

with changing morbidity rates. The hospital also changed names several times, but has continued throughout to operate at a high professional level and has lived to see its 100th anniversary. Because the hospital is located in the small town of Valdoltra, the town's name became a synonym for the hospital itself and is also used as such in this article.

Tuberculosis followed its own path and took a similar course everywhere. However, due to the turbulence of

the twentieth century, the institution established to treat this disease fought many battles simply in order to survive. It also made its own contribution to the victory against this treacherous disease, and then focused its activity on treating osteoarticular pathologies in orthopedic patients.

Materials and Methods

Medical historiography was used to study the Valdoltra hospital upon its 100th anniversary. Because of the turbulent course of history, not all primary sources have been preserved. However, a number of secondary sources and accounts of its development are available, especially those written by members of its executive staff, including the Slovenian and Italian physicians Emilio Comisso, Antonio Mezzari, Bogdan Brecej, Vaclav Pišot, and others. These accounts provide an extensive and authentic presentation of the hospital's difficult developmental path from a recovery facility to a health resort, to a hospital treating osteoarticular tuberculosis, and finally to an orthopedic hospital.

The birth of the sanatorium

The beginnings of the Valdoltra hospital reach back to the end of the nineteenth century, when the Slovenian coastal region and the Bay of Trieste were part of the Austro-Hungarian Monarchy. At that time, the entire Littoral gravitated towards Trieste, which was both the largest settlement and a rapidly growing industrial city. In 1800 it had a population of 28,000, but by 1910 its population had already grown to nearly 230,000, of whom 57,000 were Slovenians¹. The effects of fast growing industrialization were soon manifested in increased tuberculosis morbidity rates. Many children suffered from scrofula and osteoarticular tuberculosis, and required treatment at health resorts. Following the example of Italian seaside health resorts, which began to be established in the mid-nineteenth century (the first was established in Via Reggio in 1842), Austria-Hungary began founding its own seaside health resorts towards the end of the nineteenth century. In 1885, the Trieste Friends of Children Society established a health resort for scrofulous children in Trieste; however, this resort soon had to give way to the expanding port. A new location was selected on a seaside piece of land in Valdoltra. Encouraging air and water test results were obtained and the construction of a health resort for scrofulous children and children suffering from osteoarticular tuberculosis was allowed. In 1902, the society first opened a small recovery facility with an outdoor ward, wooden barracks with patient beds, and a swimming pool. Children were treated using exclusively conservative therapeutic methods, such as climatotherapy, heliotherapy, and thalassotherapy; in addition, the importance of dietotherapy was also emphasized². However, the results of treatment were poor because the recovery facility only operated for three months in the summer, which was considerably too short to cure the young patients.

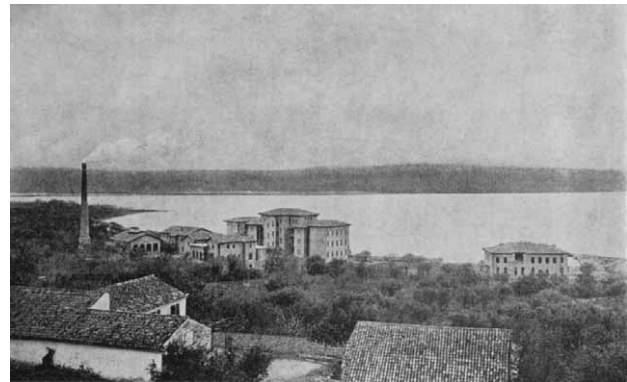


Fig. 1. Ospizio marino di Valdoltra was built in 1909 and could accommodate 270 patients (from the Valdoltra hospital archives).

The rise of the institution under the Austro-Hungarian Monarchy (1909–1914)

Because the Trieste Friends of Children Society was committed to improving conditions for treating children, it raised the necessary funds through charitable efforts to build a large and (for that time) state-of-the-art hospital, which officially opened on 21 December 1909 (Figure 1). The seasonal recovery facility thus turned into a hospital that used modern concepts of holistic treatment. The hospital received 270 beds along with modern equipment and infrastructure. It was headed by senior consulting physician Emilio Comisso, who served as its technical and administrative director. He was aided by two physician assistants, and each ward was attended by two nurses. The hospital's main building was Pavilion A with its appertaining structures. The hospital also included an isolation ward for infectious patients, an outdoor ward, a residential building, and everything else required for smooth operation. In addition, free dental service and education were provided to the children; this education was officially recognized and was arranged by the Trieste Red Cross committee. Entertainment was also provided for sick children. Treatment was conservative, with the main emphasis on physiotherapy (Figure 2).

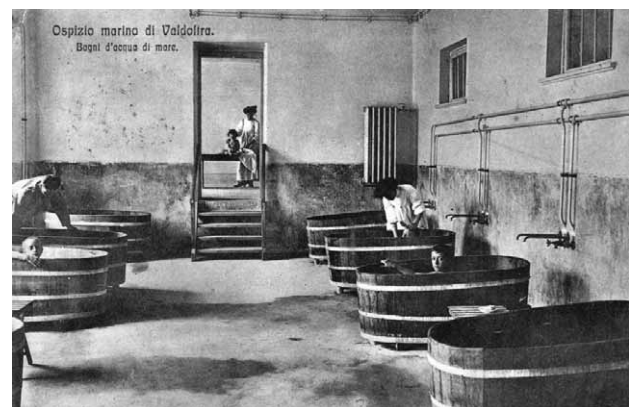


Fig. 2. Seawater baths were part of conservative treatment of osteoarticular tuberculosis (from the Valdoltra hospital archives).

TABLE 1
PATIENT STRUCTURE FROM 1909 TO 1912

By province	By disease type
Trieste (56.0%)	Osteoarticular tuberculosis (49.0%)
Istria (12.0%)	Lymphatic inflammation (14.4%)
Moravia (8.0%)	Rickets and rachitic deformities (6.6%)
Bohemia (7.0%)	Other acquired deformities (3.7%)
Gorizia (5.1%)	Keratoconjunctivitis (3.6%)
Dalmatia (3.7%)	Effects of poliomyelitis (2.5%)
Lower Austria (3.0%)	Scoliosis (1.7%)
Other Austrian provinces (5.0%)	Congenital hip dysplasia (1.2%)
	Other conditions (5.5%)
Total patients admitted: 865	

The treatment system in place was paid for by social security or patients themselves. Initially, the hospital was intended for treating only children, but gradually adults began to be admitted as well. In the first three years, the total number of patients admitted increased to 865. These were mainly osteoarticular tuberculosis patients. Children under three, patients suffering from pulmonary tuberculosis and other contagious diseases, and patients with psychiatric problems were not admitted. The majority of patients came from Trieste and Istria, among whom Slovenian children from poor social environments prevailed. The health resort soon raised its public profile and was operating at full capacity³ (Table 1).

The hospital during 1st World War

The hospital's initial success was interrupted by the First World War, which in July 1915 shut the hospital's doors for four years. During the war, border regions were usually the most threatened. In addition to the financial problems that the hospital struggled with at the beginning of war, the Austrian military authorities also represented a great problem. They closed down the hospital due to the state of war and the imminent danger to the patients, and allowed the Austrian army to occupy it. Some patients were discharged, but the majority was relocated to the hospital in Trieste. The Austrian army soon placed anti-aircraft guns on the hospital's grounds, which caused the Italians to bomb and lay waste to the site⁴.

Development of the hospital under Italy (1919–1943)

After the war, the Valdoltra institution was revived using the material aid provided by the allies, especially the American Red Cross. In 1919 it admitted its first patients. Due to constant financial problems, the Friends of Children Society transferred the Valdoltra hospital to the Italian Red Cross on 1 September 1920. Under the new administration, which was in force until December 1943, Valdoltra experienced great progress. This was reflected in its modernization, increasing hospital capacities and diagnostic equipment available, and its expanding professional activity. To a great extent, the hospital owed its



Fig. 3. The Duchess Elena of Aosta Seaside Hospital in Valdoltra during the Italian administration. It had 360 beds available before the outbreak of the Second World War (from the Valdoltra hospital archives).

success to Mussolini's administration, which financially and organizationally supported all important public institutions during the 1920s and 1930s, especially activities to combat tuberculosis⁵.

In 1929, Dr. Antonio Mezzari became the manager of the Valdoltra hospital. As part of the postwar renewal, the hospital was technically improved, a new operating room was built and equipped, and modern sterilization equipment was purchased. In addition, a casting room, a radiology office, and a lab for chemical and skin tests were newly equipped, and a lab for performing animal experiments was also set up. In 1934, the new main Pavilion B was built. The hospital was renamed *Ospedale Marino »Duchessa Elena d'Aosta«* in Valdoltra after the Italian Duchess Elena, who laid the foundation stone for Pavilion B. In 1939, the hospital was further expanded and its renovation was concluded. The overall capacity of the Valdoltra hospital thus increased to 360 beds⁶. The hospital continued to provide for itself. Cereals and vegetables were grown on 60 hectares of arable land and the hospital also had its own vineyard and orchard (Figure 3).

The patient age structure also changed. There were fewer 1- to 10-year-old children, whereas the number of patients in the 10-to-20 and 20+ age groups increased. Patients suffering from osteoarticular tuberculosis prevailed in this period as well⁷ (Table 2).

Patients were generally treated using conservative methods. Plaster casts were properly adjusted to the

TABLE 2
PATIENT STRUCTURE FROM 1928 TO 1932

By province	By sex	By age
Friuli (87.0%)	1928 (male 51.3%)	43.9% 1–10 years old
Emilia (5.6%)	1929 (male 52.0%)	38.5% 1–10 years old
Other Italian province (3.8%)	1930 (male 53.8%)	32.7% 1–10 years old
Other provinces (3.6%)	1931 (male 51.8%)	24.8% 1–10 years old
	1932 (male 46.9%)	21.0% 1–10 years old
Total patients admitted: 2,422		



Fig. 4. Before the Second World War, orthopedists often treated osteoarticular tuberculosis of the extremities with extension exercises. They invented their own device for this: weights for stretching the joints (from the Valdoltra hospital archives).



Fig. 5. Before 1941, Kraljevica on the Adriatic coast with its 120 beds was the only institution in Yugoslavia for treating osteoarticular tuberculosis (from the Institute of History of Medicine Faculty of Medicine in Ljubljana archives).

body so that the affected parts could also be exposed to sun. Patients were turned in their beds frequently to prevent bedsores. Plaster corsets and other orthopedic aids were used to improve deformities, especially of the upper body⁸. Surgical procedures were rarely performed and only after a careful professional assessment and thorough preparation of the patient. The hospital had all the necessary transfusion equipment, and blood donors were selected from among the medical and auxiliary staff. Good food was also part of therapy: five different menus were offered depending on the patient's state of health and the amount of money paid for the treatment (Figure 4).

Osteoarticular tuberculosis among Slovenians (1919–1941)

Up to the 1930s, the Kingdom of Yugoslavia did not pay much attention to osteoarticular tuberculosis. However, this disease was becoming an increasing problem for the state. A patient with medically cured osteoarticular tuberculosis is practically maimed for life. More concrete attention was drawn to this type of tuberculosis as late as 1932 at the first Yugoslav congress of the orthopedic society, where guidelines for fighting this disease were also outlined. It was proposed that osteoarticular tuberculosis clinics should be established within orthopedic departments, but the main problem was the lack of beds. In 1936, when the population of Yugoslavia was 14.6 million, only one bed per 140,000 patients was available for osteoarticular tuberculosis patients and only one seaside health resort Kraljevica with 120 beds, and a few beds on the orthopedic wards of the general hospitals in Belgrade, Zagreb, Ljubljana, and Osijek. Because accurate information on the incidence of osteoarticular tuberculosis was impossible to obtain, the problem of inadequate beds became increasingly acute. Only statistical

calculations based on data on the number of people treated in hospitals were available. Among these, children 1 to 14 years old prevailed; they had a poor prognosis because there was no free treatment available for 1- to 6-year-old children, as in some European countries, and many parents could not afford the treatment⁹ (Figure 5).

At the Ljubljana hospital, for example, 7,480 patients with osteoarticular and extrapulmonary tuberculosis were treated from 1914 to 1931. In the Drava Province (the administrative unit that covered the territory of today's Slovenia excluding the Littoral from 1929 to 1943), 50 beds were provided for osteoarticular tuberculosis patients at the orthopedic department of the Ljubljana hospital as part of the emergency measures taken in the first phase. In the Maribor area, a similar department was set up alongside a fund for providing orthopedic aids to poor patients; in addition, temporary seasonal recovery facilities were set up in mountainous and wooded areas, compulsory training of physicians in orthopedic departments was introduced, and lectures and pictorial material were used to educate people about this disease¹⁰. From 1946 to 1949, 500 to 700 new patients *per year* were recorded in Slovenia⁶.

After Second World War, osteoarticular tuberculosis was a great public health problem in Yugoslavia. For that matter had to be handled systematically and in an organized manner, and the Valdoltra health resort was successful at this.

The hospital in years 1943–1945

When Italy capitulated in September 1943, the hospital again fell into the hands of the military. The German military command settled in the hospital and patients were moved to Monte Alberi near Vicenza, Italy. The Germans did not leave the hospital until April 1945, leav-

ing the premises in ruins. The hospital's pavilions and auxiliary buildings were devastated and unusable. In May 1945, the damaged buildings started being used by the Medical Corps of the Yugoslav People's Army in charge of concentration-camp inmates and the wounded. The Valdoltra hospital and property passed under the temporary administration of the Slovenian National Property Administration Committee. This committee inspected the hospital's legal and economic condition and inventoried all of the damage caused by the German occupying forces. This list was also signed by the representatives of the Italian Red Cross⁶.

The hospital's development after the War (1945–1947)

The pressing issue of osteoarticular tuberculosis encouraged the pioneer of Slovenian orthopedics, Dr. Bogdan Breclj (1906–1986), and his colleagues to obtain loans to renovate the destroyed buildings in Valdoltra. In September 1945, the hospital was renovated and ready to admit the first osteoarticular tuberculosis patients. The following year it began full operation and admitted the largest number of patients after the renovation: a full 400. The treatment of osteoarticular tuberculosis was approached systematically: in addition to conservative and surgical treatment, the training of specialized staff was provided for, laboratories were set up, and qualified staff was engaged for research and experimental work. In 1947, Valdoltra became the leading institution for treating osteoarticular tuberculosis in Yugoslavia and was renamed Federal Institute for Osteoarticular Tuberculosis, and the hospital in Golnik became the leading institution for treating pulmonary tuberculosis in all of Yugoslavia¹¹. Valdoltra's tasks primarily included developing a uniform doctrine for treating osteoarticular tuberculosis – which was adopted by other similar health resorts in the country – training staff, and carrying out research on osteoarticular tuberculosis¹².

Successful treatment was ensured through simultaneous development of physiotherapy and rehabilitation, and modern orthopedics. In 1947, the first Yugoslav conference on osteoarticular tuberculosis was organized; at this conference it was decided that the Orthopedic Clinic of the Ljubljana Medical Faculty would assume the professional management of the Valdoltra hospital and be in charge of the development of the discipline and medical staff¹³.

By 1948, a total of 1,180 patients were treated (partly conservatively, partly surgically or using a combination of both) in Valdoltra¹⁴. A great change occurred in the treatment method after the Second World War. The combined method of treating osteoarticular tuberculosis was placed at the forefront, because both methods complemented one another well. In conservative treatment, new perspectives on fully immobilizing plaster casts and their negative effects appeared. Physiotherapy with extension exercises was used increasingly more often; this proved to be the most successful method of relieving the affected part of the body. The conventional treatment



Fig. 6. After 1945, the hospital introduced state-of-the-art treatment concepts for osteoarticular tuberculosis. Due to the long hospitalization period, this included schooling for sick children (from the Valdoltra hospital archives).

method, in which two or three neighboring joints were immobilized in addition to the affected joint, increased the degree of the patient's disability and at the same time considerably shortened the overall treatment (by a year or even more on average). In the pathology of osteoarticular tuberculosis, paraplegia resulting from spinal tuberculosis is considered the most dangerous complication and up to that time it represented a still-unresolved treatment problem. Valdoltra relied on the experience of other international osteoarticular tuberculosis centers and revised its extremely conservative treatment into combined therapy and performed surgeries on 21% of all patients suffering from osteoarticular tuberculosis during treatment¹². Antibiotics and operative therapy significantly changed the method of treating osteoarticular tuberculosis, whereas climatotherapy, heliotherapy, and hydrogymnastics remained component parts of treating patients with extrapulmonary tuberculosis (Figure 6).

The 1947 Peace Treaty

Signing the Treaty of Peace with Italy in 1947 again brought the hospital's development to a halt. After the war, the Valdoltra area belonged to a part of the newly declared neutral state known as the Free Territory of Trieste. Because Valdoltra was right on the border between the Italian Zone A and the Istrian Zone B, the hospital had to be relocated and overnight Slovenia lost its only health resort for treating osteoarticular tuberculosis. In the nearby Croatian town of Rovinj, to which the hospital was moved, only 60 beds were allocated to Slovenian patients¹⁵.

The Yugoslav era after 1952

The peace treaty left the abandoned Valdoltra facility without an owner and made it available for various purposes: education, summer camps, and, finally, housing. This sparked a reaction from the Italian Red Cross, which demanded that the institution be returned to Italy in or-



Fig. 7. In 1961 the Hospital for Osteoarticular Tuberculosis was renamed the Valdoltra Orthopedic Hospital. It became the leading orthopedic institution in Slovenia and continued to strengthen its professional profile and keep abreast of developments (from the Institute of History of Medicine Faculty of Medicine in Ljubljana archives).

der to be used for treating tuberculosis. Thus in 1950 a meeting was convened, at which the Slovenian Ministry of Health decided in agreement with the Istrian District People's Committee to renovate the hospital for its original healthcare purposes and modernize it, taking into account the current osteoarticular tuberculosis morbidity rates among the Slovenian population. The renovation began in June 1951. Despite great financial difficulties, a sick-ward with 58 beds was opened in August 1952; eight nurses worked in this ward in addition to 48 employees that worked in food service, technical areas, and other auxiliary activities¹⁵. They did not have a permanent physician until 1955, when Dr. Jože Verlič was employed fulltime; until then, physicians from the Ljubljana Orthopedic Clinic worked in shifts at Valdoltra¹⁶. The renovation continued and every year more patients were admitted: 116 in 1953, 157 in 1954, 330 in 1956, and 420 after the renovation was concluded. Valdoltra became the largest center for treating osteoarticular tuberculosis in Slovenia and Yugoslavia.

Victory over osteoarticular tuberculosis

At the new premises, the first surgeries began in 1954. Great changes were introduced to osteoarticular tuberculosis therapy and new treatment standards were introduced after the renovation: active surgical procedures under the protection of antibiotics and surgical evacuation of tubercular foci still in the active stages of the disease. Chemotherapeutic agents only work against bacteria, but cannot remove necrotic tissue. The surgical removal of this tissue shortened hospitalization by several months.

In 1956, the Valdoltra hospital was the first in Yugoslavia to begin removing tubercular foci and to systematically monitor patients after surgery using bacteriological, histological, and biochemical tests. Suction of the joints and abscess cavities replaced the previously used conservative treatment and the conventional surgery

for osteoarticular tuberculosis, which used extrafocal stabilization procedures. The surgery department became the main venue of treatment; it included an X-ray viewer, sterilization equipment, a room for preparing patients, an anesthesiology room, and an intensive-care wing for postoperative care. Intra-articular administration of antibiotics was introduced to all departments. The medical rehabilitation, physiotherapy, and occupational therapy rooms were rearranged. The reports on 334 patients that underwent surgery showed the following advantages of radical focal surgery over conventional methods: hospitalization lasting only half as long, fewer recurrences, lower mortality rates, and functional restitution of affected organs. The mortality rate in surgery patients decreased to 0.6%¹⁷.

After 1956, the number of tubercular patients, including those suffering from osteoarticular tuberculosis, fell significantly due to good treatment and prevention. The nature of osteoarticular tuberculosis changed from a severe malignant disease into a benign disease. Even during the 1950s, severely affected children with large humps, paraplegia, urinary-tract infections, and chronic fistulas lay in the pediatric department; some of them became hearing impaired due to streptomycin therapy, and others died of uremia and amyloidosis after long years of hospitalization. However, in the following decades, there were hardly any pediatric patients left. From 1953 to 1960, 1,304 patients with osteoarticular tuberculosis were admitted and only 167 were children under 14 (accounting for approximately 8% of the disease population). Over 20 years, hospitalization was shortened from one lasting several (i.e., five to ten) years to only 4.7 months on average. In 1958, the share of patients with osteoarticular tuberculosis among all tubercular patients in Slovenia was still 28%, whereas in 1970 this share was only 3.6% (Table 3). Osteoarticular tuberculosis was no longer a pediatric orthopedic disease, but had become a geriatric orthopedic disease¹⁸. A well-organized outpatient clinic, BCG-vaccination of newborns, the application of antitubercular agents, and improved living standards contributed to the successful decline in osteoarticular tuberculosis. In addition, this decline was also the result of more accurate diagnostic and differential diagnostic criteria. The specialized healthcare institution in Valdoltra was more than able to cope with all of this because its professionalism, personnel, material, and climate provided everything needed for the complex treatment of this disease.

After the decline of osteoarticular tuberculosis and the subsequent changes to the hospital case mix, the hospital was renamed the Valdoltra Orthopedic Hospital in 1961 and gained the status of a republic-level institution¹⁹. It became the largest orthopedic hospital in Slovenia, and continued to grow stronger and to modernize throughout (Figure 7). In 1978 it had 375 employees, including 18 physicians, who performed 924 major and 80 minor surgeries and treated 5,431 patients that year²⁰. Today's hospital has 190 beds; it examines over 25,000 patients from across Slovenia, hospitalizes over 5,700 patients, and performs over 3,400 surgeries a year. The hos-

pital has 300 employees, including 30 specialist physicians²¹. Valdoltra has now been successfully restructured into an orthopedic center with state-of-the-art diagnostics and therapy programs.

Discussion

In the developed world, tuberculosis was especially typical of the nineteenth and the first half of twentieth centuries. Gradually revealing the secrets of this difficult-to-contain socioeconomic disease did not offer much hope for victory until the discovery of streptomycin in 1943. Pulmonary tuberculosis seems ordinary to us because it is so frequent, but bone tuberculosis is rarer and thus its complex manifestation with physical deformity and consequent disability seems strange. Its frequent occurrence among children and young people was even more frightening and thus called for a solution. Because this problem was not tackled through official channels in the Trieste region at the beginning of the twentieth century, charitable people made humanitarian efforts to establish a hospital for treating children suffering from osteoarticular tuberculosis. However, even in the twenty-first century, healthcare institutions still struggle with financial problems that drain their resources. The example described above is repeating itself even today: cases in which individuals and groups organize themselves and collect funds to purchase diagnostic aids and similar devices are not at all rare. Sick children have always received more attention and sympathy from informed societies. Treacherous bone consumption twisted children's developing spines into humps, deformed children's chests, shortened their legs and arms, paralyzed them, and marked their young lives with deformity. Strapped into a variety of corsets and with the constant support of medical and nursing staff, children endured often arduous hospitalizations that lasted several years. The children's physical trauma was accompanied by psychological wounds, which the Valdoltra staff consciously countered with their strong professional ethos, an on-site school, cultural events, social activities, entertainment, and so on. In the face of years of hospitalization and lifelong disability, healthcare funds also suffered great losses. Medical research and the discovery of effective chemotherapeutic agents, which worked as miracle drugs to prevent the de-

velopment of bone tuberculosis together with preventive measures, have greatly benefited humankind. Unfortunately, these medicines are only accessible in the developed world. For the underdeveloped world, which is characterized by general poverty, tuberculosis remains a cruel reality because some two million people still die of this disease every year. The awareness of the fact that we are privileged in this regard is encouraging, but it leaves a bitter aftertaste. Medical staff, who can nearly completely restore patients' health and psychophysical well-being, feel even greater joy; however, dissatisfaction remains if work stops halfway and a life is saved but disability is inevitable. In recent decades, orthopedists have achieved much greater professional and personal satisfaction because they have been able to replace hip and knee joints with prosthetic devices in adult patients with severe degenerative diseases, and perform minimally-invasive endoscopic surgeries, enabling patients to be rehabilitated sooner and live fully again.

Conclusion

The medical staff at Valdoltra has experienced a century-long development of orthopedic medicine, its changing pathology, and various capabilities. A new era awaits them, filled with the challenges of the present, rapid technological development, orthopedic materials, surgical approaches, and genetic engineering. Also the twenty-first century is the century of the elderly, and orthopedic treatment is on the increase because increasing numbers of older people have need of it. What seems impossible today may become an orthopedic reality tomorrow. The era of palliative treatment of severe damage caused by osteoarticular tuberculosis appears to be long past, and the medical staff at Valdoltra is also grateful that permanent disability is no longer the diagnostic outcome of their treatment. After all of the shadows cast by osteoarticular tuberculosis, bright prospects await Valdoltra in the future.

Acknowledgements

The authors would like to thank the Valdoltra Orthopedic Hospital staff for their assistance with archival materials and photos.

REFERENCES

1. STRANJ P, Slovene minority in the region Friuli-Venezia Giulia in social and historical perspectives. In *Slovene* (Slovenski raziskovalni inštitut, Narodna in študijska knjižnica, Znanstveni inštitut Filozofske fakultete Univerze v Ljubljani, Trst, 1999). — 2. DEPANGHER M, Tuberculosis Sanatorium in Valdoltra – critical analysis. In *Italian* (Tipografia Dolenc, Trieste, 1901). — 3. COMISSO E, The Duchess Elena of Aosta Seaside Sanatorium in Valdoltra near Trieste: Report for the Years 1913–1922. In *Italian* (Cooperativa Tipografica Luigi Luzzatti, Rome, 1923). — 4. PIŠOT V, *Zdrav Vestn*, 40 (1971) 146. — 5. SIMONITIA A, Delo proti tuberkulozi, 1 (1935) 47. — 6. BRECELJ B, *Zdrav Vestn*, 49 (1980) 67. — 7. MEZZARI A, The Duchess Elena of Aosta Seaside Hospital, 4th Statistical Report, 1 January 1928–31. In *Italian*. (Valdoltra, December 1932). — 8. GERBEC V, *Zdrav Vestn*, 49 (1980) 8. — 9. MINAR F, Delo proti tuberkulozi, 3 (1937) 50. — 10. DERGANČ F, *Prir. slov. zdr*, 4 (1949)

105. — 11. ZUPANIČ SLAVEC Z, Tuberculosis: The Nineteenth- and Twentieth-Century Plague in Slovenia. The Case of Golnik, 1921–1998. In *Slovene* (Bolnišnica Golnik, Inštitut za zgodovino medicine, Golnik, 2009). — 12. BRECELJ B, The Development of Orthopedics in Slovenia. In *Slovene*. In: Smerdu F (Ed) *Poslanstvo slovenskega zdravnika* (Slovenska matica, Ljubljana, 1965). — 13. BRECELJ B, *Zdrav Vars*, 1 (1962) 3. — 14. KOVAČ T, *Zdrav Vestn*, 49 (1980) 84. — 15. PIŠOT V, *Zdrav Vestn*, 40 (1971) 147. — 16. PIŠOT V, *Zdrav Vestn*, 40 (1971) 148. — 17. KOVAČ M, *Zdrav Vestn*, 49 (1980) 81. — 18. PIŠOT V, *Zdrav Vestn*, 48 (1980) 77. — 19. Official Gazette of the People's Republic of Slovenia. In *Slovene*. No. 31/1961. — 20. BRECELJ B, *Zdrav Vestn*, 49 (1980) 69. — 21. Orthopaedic Hospital Valdoltra: Historical Development, accessed 23.03.2009. In *Slovene*. Available from: URL: <http://www.ob-valdoltra.si>.

Z. Zupanič Slavec

*University of Ljubljana, Faculty of Medicine, Institute for the History of Medicine, Zaloška 7a, 1000 Ljubljana, Slovenia
e-mail: zvonka.zupanic-slavec@mf.uni-lj.si*

VALDOLTRA I OSTEOARTIKULARNA TUBERKULOZA MEĐU SLOVENCIMA: 100. OBLJETNICA BOLNICE U VALDOLTRI

S A Ž E T A K

Stota obljetnica bolnice u Valdoltri, u Sloveniji, na sjeveroistočnoj jadranskoj obali u blizini talijanske granice, gdje su se granice često mijenjale (jer je grad pripadao Austro-Ugarskoj, Italiji, Jugoslaviji i nakraju Sloveniji) i koja je bila vojno okupirano područje u međuratnom razdoblju – nudi mogućnost pregleda profesionalnog puta ove institucije. Bolnica je utemeljena 1909. godine, kao čin milosrđa od strane Društva prijatelja djece iz Trsta, zbog visoke stope skrofule te koštane i ekstrapulmonarne tuberkuloze kod djece u Trstu. S 270 kreveta, bolnica je skrbrila o bolesnoj djeci, a kasnije i o odraslima. Nakon I. svjetskog rata, vođenje bolnice preuzeo je talijanski Crveni križ i izgradio dodatno krilo 1934. godine, čime je kapacitet bolnice povećan na 340 kreveta. Nakon talijanske kapitulacije, njemački vojnici su okupirali bolnicu i ostavili ju razorenu po završetku rata. U rujnu 1945. godine bolnica je renovirana i preuzima ju slovenski centar zdravstva; 400 kreveta se ponovno aktivira za liječenje pacijenata oboljelih od koštane tuberkuloze. No, to nije trajalo dugo. Nakon potpisivanja mira s Italijom Valdoltra je postala središnja jugoslavenska institucija za liječenje koštane tuberkuloze te se morala preseliti u Rovinj, u Hrvatsku, zbog političke podjele regije oko Trsta u zone A i B. Tek 1952. godine se bolnica vratila u Valdoltru i nastavila sa svojom misijom. U dvadesetom stoljeću, tuberkuloza se liječila slično svugdje, sve dok nisu otkriveni antituberkulozni agensi. U početku su se za liječenje koštane tuberkuloze koristile klimatske i higijensko-prehrambene metode, ortopedska pomagala, gipsani korzeti i fizioterapija. Nakon toga su uslijedili kirurški zahvati, koji su uzeli maha nakon 1945. godine, upotrebom antibiotika i (postoperativnom) fizioterapijom i rehabilitacijom. Kemoterapija i preventivno cijepljenje se pokazalo uspješnim u liječenju koštane tuberkuloze i ostalih oblika ove bolesti, a broj oboljelih je nastavio opadati. Bolnica u Valdoltri je očuvala svoju tradiciju liječenja osteoartikularnih patogenija i predstavlja glavnu slovensku ortopedsku bolnicu od 1961. godine.