

## BEDRICH SMETANA – ART AND DISEASE

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### SUMMARY

In this article we discuss what we can discover about Bedrich Smetana's illness and its effect on his art.

**Key words:** art – disease - music

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### INTRODUCTION

Besides Antonin Dvorak, Bedrich (Friedrich) Smetana (1824-1884) was the most famous Czech composer and one of founding fathers of the Czech national music. His life was accompanied by the disease symptoms origin of which became immediately after his death a matter of nationalist-tinged bitter disputes. This emotional „battle for diagnosis“ of the national hero persists practically onwards despite the fact that on the professional level it was definitely solved.

### EARLY LIFE

Smetana grown up in the family of well situated brew master in Czech town Litomyšl and already as a child was talented musician, particularly pianist. After high school graduation he gained some musical education and started to work as a choirmaster, conductor, concert pianist and a teacher. Smetana's first wife gave him four children of which three died in early childhood. She died from tuberculosis in Dresden on the way from Goteborg to Prague. With his second wife Bettina Ferdinandi Smetana had two daughters, who survived him. All his life Smetana actively composed; his works include 9 operas, 14 choruses, songs, 3 symphonic cycles (e.g., My country) and 15 other pieces plus 2 string quartets, 1 piano trio, 1 violin duo, rich range of piano compositions (Dances, Etudes, Preludes, „Dreams“ etc.) and many other works. In 1874 Smetana became completely deaf what lead to loss of his positions as a conductor and director, but similarly as Beethoven he retained his auditory imagination and continued to compose.

### FAMILY HISTORY

There is only scarce evidence on mental disorders in Smetana's family history. His daughter Bozena (Beatrix) from the second marriage died in 1941 in her age of 78 in Vienna in Mental hospital Am Steinhof. Her symptoms resembled the terminal condition of Bedrich Smetana and were at that time diagnosed as senile brain atrophy with sclerosis of cerebral vessels. This was one of arguments against a specific origin of

Smetana's disease. Nevertheless, heredity of both conditions is not convincing enough to exclude syphilitic origin of the illness of her father. On the contrary, the personal Smetana's history is quite rich. He suffered from severe myopia and seborrhoeic disposition (furuncles). When he was 11, he suffered injury to his face caused by the explosion of a bottle with gunpowder, healing of which was complicated by infection with consequent osteomyelitis of right temporal bone and mandible what led to his face asymmetry. Moreover, he suffered from parodontosis and severe toothaches. Smetana was nice, tolerant, conciliatory and mild personality with high resilience and tolerance to stress. He was faced to harmful life-events (loss of three children and the wife within 10 years) and public hostility including bitter competition with the conductor Mayer.

### EARLY SYMPTOMS

First warning symptoms occurred in Smetana in 1862 when he was 38. He heard a duet of male voices and a sound of an organ in the noise of a running train. These can be classified as pseudo-hallucinations as he was fully aware of their morbid origin. This was followed by increasing tinnitus and hearing difficulties. In April 1874 a persistent furuncle appeared somewhere on his body and in May he got severe angina. In June and July the tinnitus culminated and in the turn of September-October he became completely deaf. He was treated by prominent Czech and German ENT experts who diagnosed his illness mainly as a *paralysis of auditory nerves with central impairment and neuritis*. He was treated with „electrisation“ and perforation of the eardrum. One Prague doctor prescribed him also mercury ointment what indicates that already at this time also syphilis was considered as a cause. (Btw. syphilis as a possible cause of deafness was recognized only couple of years before Smetana's deafness; nevertheless mercury ointment - *Schmierkur* – was a remedy of choice for syphilis). One of treatments of syphilis at that time was also „holly wood“ – *guaiacum*. Smetana prepared himself an alcohol extract from guaiacum wood and used it as a mouth wash. Mercury treatments led generally to agitation, depressions,

tremor, dysarthria, Parkinsonian signs and choreatic movements. Much of that is documented in reports and letters.

## THE DISPUTE

The basic dispute on Smetana's diagnosis was led between German medicine/musicology and Czech experts. While Germans claim Smetana acquired a syphilitic chancre around 1874 (what has never been directly proven), Czech experts say that it was a furuncle. Germans add that sharp throat pain and redness was in fact specific angina, while Czechs think it was non-specific (Streptococcal?) infection. The Germans argue that Smetana's deafness is a result of a specific inflammation in a region of acoustic nerve which led to its atrophy while Czechs stress it was an atherosclerosis of *n. acusticus*. Moreover, Czech experts point out possible ear damage caused by the explosion of the bottle with gunpowder in childhood (!). These arguments, however, are mutually inconsistent, because either is valid one or the other, not talking about the puzzle how an osteomyelitis in the age of 11 can cause deafness in fifty.

## LATER SYMPTOMS

At the end of his life Smetana's illness was characterized by many psychotic phenomena, particularly hallucinations of several voices. There is no doubt about them as they were documented in Smetana's correspondence and memories of his relatives. Since 1882 he repeatedly and convincingly described hallucinations of visits of non-existing persons in his room. As he had no insight they can be classified as true hallucinations. In his correspondence Smetana also describes reversible "cerebral fits" with loss or distortion of speech, which was broken into articulated sounds only. Since the beginning of the eighties he suffered from significant memory impairment. He was often agitated, confused, distracted, restless, and made incomprehensible notes and comments. He also wrote letters to imaginary persons named Mozart, Beethoven etc. Severe (tabic?) cough was also documented as well as paralytic dysarthria, unstable gait, frequent falls, disorientation in person, and aggression (he destroyed a furniture and equipment in the house, his own works, endangered his close persons by pointing them with a pistol). He made mistakes and unintelligibly mixed German and Czech languages. In the last year of his life Smetana lost control and self-care, became unpredictably agitated and needed permanent supervision. On 22 April 1884 the family doctor referred him to the Mental Hospital in Prague where suffering Smetana died on 12 May 1884 after weeks of starvation and personal degradation. The autopsy protocol, signed among others also by Professor Joseph Hlava, concludes the findings as *leptomeningitis*

*chronica, periencephalitis chronica, hydrocephalus internus chronicus, atrophia cerebri rubra, ependymitis granulosa ventriculi IV, pneumonia lobularis bilat. – (??), thrombosis arteriae femoralis, atrophia universalis. „Clinical recognition“: dementia senilis.* Prof. Hlava at first made a note that it could be due to progressive paralysis (PP), which he, however, later on retracted. Medical records from the end of Smetana's life are unfortunately poor. His files were stolen from the Prague Psychiatric Department and the record of Smetana's admission is missing. At admission, no one examined his Argyll-Robertson reaction, which is pathognomic for the diagnosis of progressive paralysis. Smetana's brain was first preserved in The Department of Anatomy and later on during the Second World War was protected against Nazis in private possession. After the War it was given to a prominent communist neuro-histopathologist (and personal doctor of president Gottwald) Dr. Vladimír Haskovec, who was, however, soon arrested by the communist secret police and his house was searched. On this occasion his personal items were confiscated including Smetana's brain. Then the trace of Smetana's brain definitely fades away.

## EXHUMATION

In 1987 Smetana's body was exhumed and completely examined. His ear bones *malleus* and *incus* (right) were absolutely untouched by any inflammatory process. In other tissues all tests for syphilitic infection were positive. In summary, the arguments for a syphilitic origin of Smetana's mental disorder (PP) are supported by:

- ***Atrofia cerebri rubra.*** In 1922 German doctor Spatz reports ferrous pigments on brain cortex as a diagnostic sign of PP.
- ***Leptomeningitis – arachnoiditis chronica.*** Such a picture was described in 6 patients with PP in Charenton (France) by French physician Antoine Laurent Jessé Bayle in his dissertation *Recherches sur les maladies mentales* (21 November 1822). By the way relationship between syphilis and PP was discovered by Fournier in 1879, i.e. shortly before Smetana died. This relationship might not be necessarily known to Smetana's doctors and pathologists. The histopathology of PP was described by Nissl in 1904 and only in 1913 Hideyo Nogushi found a spirochete *treponema pallidum* in brains of patients with PP.
- ***Ependymitis granulosa.***
- ***Furunculosis*** – disposition to furunculosis in PP was described by the Czech psychiatrist Josef Mysliveček in 1959.
- Some ***hypomania***, creativity, and productivity. Smetana composed his best works even when he was already seriously sick. He worked until the very end of his life.
- ***Ataxia***, which he described himself.

- **Hypersensitivity to cool.** This is both mentioned several times by Smetana himself and is also indicated by warm clothes Smetana wears on photographs.
- Smetana might suffer from signs of **mercury poisoning**. Huge concentrations of mercury were found in his tissues upon the exhumation of his body.
- The most serious argument is *positive serology*. Samples from orbit, nasal cavity, face bones and mummified soft tissues from both sides of pelvis exerted positive results of TPHA +, FTA-ABS IgG±, and rapid reagin test (RRR) +++.

All of these undeniable signs and findings complete together a mosaic of quite clear diagnosis of progressive paralysis as a consequence of acquired syphilitic infection. To say now, after almost 130 years after the Smetana's death, anything else borders on delusion.

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