NOW AND THEN

Mozart's death

R Treves

Two centuries ago Wolfgang Amadeus Mozart died at the age of 35 after 15 days of agony. At the time this led to rumours of poisoning, readily ascribed by certain people to his rival Antonio Salieri. Reconsideration of the facts, a critical analysis of the medical observations of the time, and a review of recent hypotheses suggest that the poisoning theory should be discarded in favour of a diagnosis of inflammatory rheumatism.

Mozart suffered several times from infection of the respiratory tract and from cutaneous rash.

As early as October 1762 (the year in which the minuets and the allegros for harpsichord were composed), at the age of 6, he is said to have had a 'fit of scarlet fever', which lasted several weeks, and a rash which might have been similar to erythema nodosum. Two years later he had purulent tonsillitis.

In December 1765 (the year in which some symphonies, choruses, and sonatas were composed) his father, Leopold, spoke of a raging fever from which both Mozart and his sister, Marianne, were suffering after a further attack of tonsillitis complicated by sinusitis; a coma, weight loss, and a mucopurulent oral rash led them to think this was typhoid fever.

During the following year Mozart again had a fever and articular pain, without anyone knowing whether this was arthritis or not.

In September 1767 (the year during which he composed Apollo and Hyacinth, and several, concertos and symphonies) Mozart developed smallpox in Vienna.

In 1770 Mozart complained of chilblains.

On 13 September 1771, at the age of 15 (the year during which he composed Betulia Liberata and Ascania in Alba), Mozart had a severe cold and fever. He wrote: 'I am fine, but I cannot write very much because my fingers hurt by dint of writing music'. In the same year he again had bronchitis and, maybe, jaundice.

The following year (during which he composed, among other works, a Sogno di Scipione, Lucio Silla, and some symphonies), back from Italy, his sister tells us that he had been 'seriously ill' but gives no further details.

Between 1774 and 1780 he suffered successively from a dental infection, pneumonia, and respiratory infections.

At the end of 1790 Mozart, though claiming to be in good health, expressed foreboding of his imminent death in his farewells to Haydn, aged 58.

His last year, 1791 (punctuated with Titus' Clemency, the Magic Flute, and the Requiem); was a year of intense activity: On the 6 September, at the first performance of Titus' Clemency, he fell ill during the last act. This did not prevent him from directing the Magic Flute on 30 September, and from resuming afterwards composition of the Requiem between the first week of October and the 20 November—the date of his confinement to bed.

The last letter written by Mozart is dated 14 October 1791, in which he speaks of his health, which he considered very good.

His final disease lasted for 15 days (20 November–5 December). Nissen,¹ one of his biographers, describes swelling of hands and feet, lumbago, vomiting, and severe asthenia, which led to a raging miliary fever. Mozart's contemporaries reported 'hydrops, cutaneous rash, and arthritis'.

With the rough drafts of the Requiem on his bed, Mozart explained how this work should be finished after his death and died on 5 December, at 0 55 am, in the arms of his doctor, Dr Thomas Frantz Closset (who had probably diagnosed the raging miliary fever).

Mozart's body was taken to St Marx's cemetery, located one hour away from Vienna, and thrown into a common grave.

Discussion

The suddenness of the outcome and the tragic end after 15 days of agony might have suggested poisoning. Mozart believed it and blamed 'acqua Tofana'. The 'body swelling' raised suspicions for his son Carl Thomas. Furthermore, in 1823 his rival, A Salieri, admitted to being the murderer after a suicide attempt and in a fit of delirium.

The accusation of guilt made against his freemason brothers, the doubts of Carl, Beethoven's nephew, the questions asked by Carpani, Haydn's biographer, and P Schaffer's play have all helped to foster this suspicion of poisoning.

There is no evidence to support such a hypothesis, however, especially as E V Guldner von Lobes, the court physician and adviser, made no mention of this theory in a letter to Carpani, in which he stated: 'during Autumn (1791), he contracted a rheumatico-inflammatory fever, which at the time was nearly general'; this is thought to have been complicated by meningitis.

Von Sallab, a doctor who examined Mozart, speaks of 'acute miliary fever with head involvements', which suggests neurological symptoms. Of course, bleedings only made the composer's health worse.

More recently (1966), Carl Bar, a Swiss dentist, challenged the miliary fever diagnosis reported by Nissen²; he suggested a relation between a rheumatic fever and heart disorders. Davies, in 1984, suggested a Schönlein-Henoch syndrome³: cutaneous streptococcaemia following an epidemic and chronic glomerulonephritis due to oedema—the neurological disorders explaining vomiting via an arterial hypertension, a central nervous system abnormality, and what he presented as a hemiparesia. This hypothesis of rheumatoid purpura (or Schönlein-Henoch disease) often occurring after upper respiratory tract ailments, in particular those induced by a streptococcal infection, is based on strong arguments, but in 1791 renal impairment and arterial hypertension were unknown to the scientific community. J Barraud thought Mozart had died of chronic renal impairment.⁴

In support of the theory of a brain haemorrhage, Puech *et al* put forward the idea of a calcified extradural haematoma⁵; a skull thought to be Mozart's was exhumed in 1801, identified and examined in the Salzburg Mozarteum, where the mark of a left temporoparietal haematoma was found on it. Puech asserts that Mozart probably had moderate craniofacial dysmorphism (with premature cranial synostosis of the frontal suture), which is confirmed by an examination of the musician's portraits. This dysmorphism might explain the occurrence of headaches, particularly those after spring 1790, the faintness, and the possible epileptic fits. This craniostenosis, the cause of an apparent exophthalmos, reproduced in several of Mozart's portraits (those painted by Joseph Lange in 1783, and by Dorothea Stock in 1789), suggested to Sederholm a case of Graves' disease.⁶

In 1985 G E Ehrlich, considering the same symptoms (arthritis, oedema, fever, oral ulcerations, erythema nodosum, impairment of the central nervous system) suggested two other diagnoses: Still's disease and Behçet's disease (ILAR XVIth International Congress of Rheumatology, Sydney, 1985).

Would it not be possible to suggest, taking into account the recurrent upper respiratory tract and lung disorders and a possible terminal

renal insufficiency, Wegner's disease or Goodpasture's syndrome?

We wonder whether Mozart did not die of an infectious endocarditis following three attacks of acute rheumatic fever.

This last hypothesis seems sound because a study of Mozart's medical history shows a succession of respiratory tract infections (bronchitis, pneumonopathy, tonsillitis, sinusitis), in the course of which there were recurrent articular disorders. In addition, the 'miliary fever' described by Closset might have been a symptom of a severe infectious syndrome; the word 'miliary' indicating that the composer had a cutaneous rash. These cutaneous rashes might have been erythema nodosum. The 'swelling' might have been due to renal impairment. The loss of consciousness, the vomiting, the fear of assassination, the depressive state sometimes mentioned could be accounted for by an impairment of the central nervous system, possibly involving an arterial hypertension complicated by a haematoma.

On the other hand, we do not know much about his possible heart disease: Did he already have a murmur when he was an adolescent? Did he have symptoms of heart failure during the last year of his life? Both these questions remain unanswered. In 1791 heart diseases were only identified at necropsy, and their detection in living subjects was not yet possible; auscultation was discovered only in 1819.

From his 35 years of life Mozart left us about 600 works. Death haunted or worried him: the last act of Don Juan (1787), his letters, and his feelings indicate that.

He possibly died of Bouillaud's disease, complicated by bacterial infection (as in Osler's disease).

His genius was inexhaustible: Mozart remains eternal and mystical, like his music.

1 Nissen G N. *Biographie W A Mozart's. Heransgeben vom constanze, wittive vom Nissen, früher Wittive Mozart.* Leipzig: Britkopf and Hartel, 1928.

2 Robbins Landon H C. 1791: *La dernière année de Mozart.* JC Lattes, 1990.

3 Davies P J. Mozart's illness and death. *J R Soc Med* 1983; 76: 776–85.

4 Barraud J. A quelle maladie a succombé Mozart? *Chron Med* 1905; 12: 737.

5 Puech B, Puech P F, Dhellemmes P, Pellerin P, Lepoutre F, Tichy G. Did Mozart have a chronic extra dural hematoma? *Injury* 1989; 20: 327–30.

6 Sederholm C G. Mozart est-il mort d'un Basedow? *Ciba Symposium* 1959; 7: 224–8.