

Neurology in Federico Fellini's work and life

A neurologia na vida e obra de Federico Fellini

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ABSTRACT

The authors present a historical review of the neurological diseases related to the famous moviemaker Federico Fellini. There is an account of diseases depicted on his movies as well as his ischemic stroke and consequent neurological deficit - left spatial neglect.

Keywords: stroke, movie, spatial neglect.

RESUMO

Os autores apresentam uma revisão histórica das enfermidades neurológicas relacionadas ao cineasta italiano Federico Fellini. Há descrição das doenças representadas em seus filmes bem como do acidente vascular encefálico isquêmico que causou hêmiparêse à esquerda.

Palavras-chave: acidente vascular cerebral, cinema, negligência espacial.

The relationship between Neurology and art is well known. Different areas of the brain are responsible for the creative skills found in the various art forms, such as music, painting, literature and the cinema¹. Federico Fellini (1920-1993) is considered one of the greatest names in Italian cinema and one of the most important directors of all times^{2,3}. According to his biographical data, Fellini presented with various manifestations of atherosclerosis, including chronic coronary insufficiency and recurrent ischemic stroke^{3,4}. The aim of this review is to describe the main neurological diseases related to this famous Italian director.

SHORT BIOGRAPHY

Federico Fellini (Figure 1) was born on January 20th, 1920, in the small seaside town of Rimini, in the region of Emilia-Romagna, in Italy. At the end of his adolescence he moved to Rome, where he worked as a journalist, cartoonist and scriptwriter^{2,5}. Fellini's output as a filmmaker was vast, having directed a total of 22 films. Notable among these are *La Strada* (1954), *The Nights of Cabiria* (1957), *La Dolce Vita* (1960), *8 ½* (1963) and *Amarcord* (1973)². He received countless awards, including four Academy Awards for *La*

Strada (1956) (best foreign film), *The Nights of Cabiria* (1957), *8 ½* (1963) and *Amarcord* (1974), as well as two Oscars for best costume design (*Casanova* and *8 ½*). In addition, in 1993 he was given an Honorary Academy Award for lifetime achievement². Fellini died in Rome, Italy, on October 31st, 1993^{2,3}.

WAS FELLINI A BORN LIAR?

In 2003 Pettigrew made a documentary, later made into a book, based on an interview with Fellini. Published under the title *Fellini - I'm a born liar*, the book confirmed facts that had confused journalists and even Fellini's biographers for years⁶. The filmmaker admitted that he had told many lies about his biography, two of the best known being that he had run away to join a circus in Rimini when he was a child, and that he was born on a moving train. On other occasions he declared that he had met women from an "unknown planet" or that he had found a "fabulous treasure buried at the bottom of the sea"^{2,6}. The published biographical data about Fellini does not provide sufficient details to determine whether his behavior could be classified as a normal feature of his personality — he had great imagination,

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Figure 1. Federico Fellini (1920-1993).

an ability to enchant people and was a great dreamer. Conversely it was also possible that he was a pathological liar, a form of psychiatric disorder. Pathological lying is a condition that is little understood from the psychiatric point of view and has been related to various diseases, including Munchausen's syndrome, factitious disorder and histrionic personality disorders⁷. In fact, there is no objective evidence in the literature that Fellini has had a psychiatric disorder defined as pathological lying.

NEUROLOGICAL DISEASES IN FELLINI'S MOVIES

Some of Fellini's films feature characters with neurological diseases, particularly movement disorders. In the famous semi-autobiographical film *Amarcord* (1974), one scene with a bonfire in the Italian winter includes an elderly woman who has typical features of Parkinson's disease, such as bradykinesia, hypomimia and rest tremor in her hands. In the film *And the Ship Sails On*, in which the director pays tribute to opera, different characters with various mannerisms appear (the soprano, baritone and bass).

FELLINI'S CORONARY ARTERY DISEASE

Biographical data on Fellini show that he indulged in over-eating and had a sedentary lifestyle, both of which are associated with overweight, as well as a family history of cardiovascular and cerebrovascular disorders^{2,3}. In Chandler's biography of the filmmaker, he is quoted as saying "Heart trouble and strokes run in my family. My mother's brother

had a stroke and couldn't speak. My father's brother, my own brother, Riccardo – all of them died of these problems, and my mother was told my heartbeat was irregular when I was a child."² These conditions suggest a possible familial dyslipidemia or even hereditary prothrombotic state. In 1993, after receiving an honorary Oscar award in Los Angeles, USA, Fellini returned to Rome, Italy, and took his doctors' advice to have heart surgery because of chronic coronary artery disease. He went to Switzerland to undergo myocardial revascularization (bypass surgery)^{2,3}.

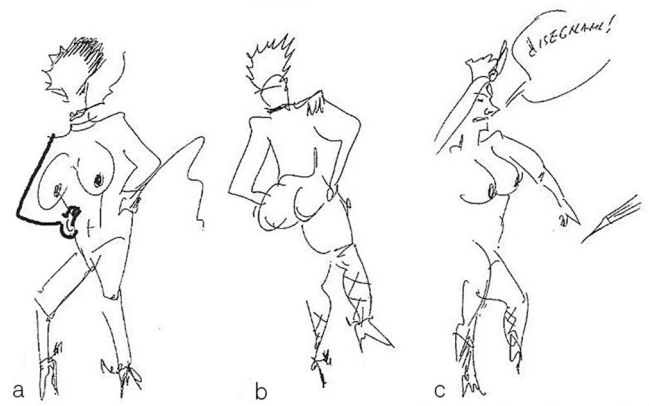
FELLINI'S STROKE

After the coronary bypass and an additional diagnosis of abdominal aortic aneurysm, Fellini went to Rimini to recover in a resort hotel, where he suffered his first stroke in August 1993^{2,3}. He was 73 years old and presented with sudden-onset neurological deficit with severe left sensory-motor hemiplegia, left inferior quadrantsia and left spatial neglect^{3,4}. A CT scan performed at Rimini Hospital one week after the stroke showed an extensive area of infarction in the posterior temporoparietal regions of the right cerebral hemisphere. The ischemic stroke occurred in the right middle cerebral artery territory³. In the follow-up he was confused at night, suggesting a form of reduplicative paramnesia (he believed that he was in his house instead of in hospital)^{3,4}. Fellini was then transferred to the San Giorgio Hospital in Ferrara, where he received clinical treatment and physical therapy³. He was confined to a wheelchair and in an interview with the journalist Charlotte Chandler said, "It's terrible when the mind is going as fast as ever, faster, and the body will no longer take orders from it. It's like being trapped in someone else's body. Now I understand I am a missing person. I've lost myself."² Because of his neurological deficit, which failed to improve, Fellini and his family decided that he should go to Rome, where he stayed in the Policlinico Umberto I Hospital. During this period, his wife, Giulietta Masina, was diagnosed with brain metastatic tumors due to lung cancer, for which there was no surgical treatment^{2,3}. Fellini's clinical condition worsened rapidly, with swallowing problems, and depression, but he was treated for both conditions^{2,3}. When he was being prepared for discharge from hospital in October 1993, he had a second major stroke and died on October 31st, one day after he and his wife, Giulietta Masina, had celebrated their 50th wedding anniversary^{2,3}.

THE NEUROLOGICAL SEQUEL – SPATIAL NEGLECT

During the follow-up after his first stroke, Fellini underwent complete neuropsychological testing by Cantagallo

and Della Sala⁴. This evaluation, which was published in 1998⁴, has concluded that his neglect syndrome was characterized by left visuomotor neglect, which persisted for two months, neglect dyslexia and extrapersonal neglect but preserved insight. The authors concluded that “Fellini’s neglect was characterized by several dissociations, of which the lack of functional carryover despite intact conceptual and semantic insight is the most relevant”^{3,4}. Fellini’s drawing of a female human figure, showing his left visuomotor neglect, according to Cantagallo and Della Sala evaluation, is demonstrated in Figure 2. Spatial neglect, or specifically Fellini’s extrapersonal neglect, is a well-known neurological sign associated with a lesion in the right cerebral hemisphere, particularly after stroke^{8,9,10}. Spatial neglect and neurobehavioral syndromes can sometimes be under-recognized. The former has a very significant impact on patient quality of life after stroke^{8,9,10}.



Extracted from Cantagallo and Della Sala - Ref. 1-, with kind permission of Elsevier.

Figure 2. Drawings made by Fellini after his stroke, suggesting left spatial neglect.

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