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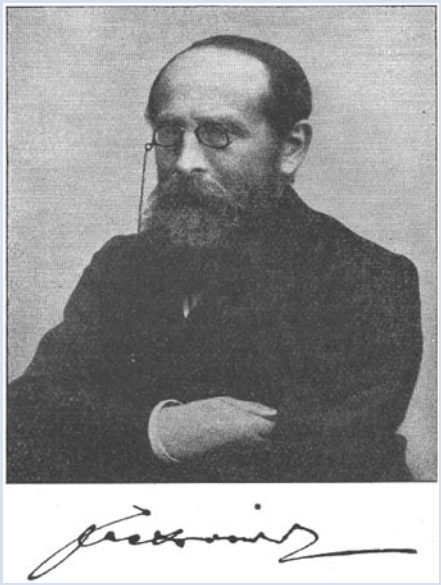
Psychiatry in history

Moritz Jastrowitz (1839–1912): moria madness, spider glial cells and X-rays

Madhusudan Dalvi



Very few psychiatrists recognise the term 'moria' (childlike euphoric excitement), coined by Jastrowitz in 1888, and even fewer will recognise 'Witzelsucht' (*witz* in German means wit and *sucht* is compulsion), coined by neurologist Hermann Oppenheim for a tendency to make silly puns. These terms have not found their way into Frederick Treves' German–English dictionary of medical terms. It was only after their description by Jastrowitz and Oppenheim that these become well-known as frontal lobe symptoms.

Moritz Jastrowitz trained in psychiatry, neurology and neuropathology and made exceptional contributions to glial cell anatomy. He was born in Lobau, Pomerania in Prussia to Hirsh Alexander and Ernestine and was eldest of six children in a struggling family. As a young boy he was forced to work in a shop but devoted his spare time to studying. He studied medicine at the Humboldt University of Berlin and the University of Zurich, qualifying in 1865. He became an assistant to Ludwig Traube at the Charité Clinic for internal diseases in Berlin and was later appointed chief physician in the psychiatry department under eminent psychiatrists Wilhelm Geisinger and Carl Westphal. In 1870–1871 he published a paper on the structure of nerve tissue during encephalitis in children in the early postnatal period, where he distinguished connective tissue from neuroglial cells and reported the presence of a molecular substance that he believed promoted myelination of axons during the development of the neuron but that gradually disappeared. He considered glial cells to be embryonic but believed they have a supportive role and described various shapes of glial cells (spindles, rounded, angular, cylindrical), reporting their length as being usually double or even three times their width. He described numerous processes extending from them, giving them a spider-like appearance, and hence named them 'spider glial cells' (*spinnenähnliche Gliazellen*) or 'spider cells' (*Spinnezellen*). He observed that their number increased towards the surface of the brain ventricle so that they finally formed the epithelium of the ependyma. This has paved the way for understanding the blood–brain barrier and neuroinflammation.

From 1881 Jastrowitz treated 12 cases of what he called moria. His first patient was a 38-year-old domestic servant who was admitted to Dalldorf for seizures, persecutory delusions, hallucinations and confusion. He would stand in front of other patients, open his eyes wide, joking and laughing. He misidentified attendants and physicians as former acquaintances and behaved in a childish manner, would whistle, suddenly cry out loudly or squeal in laughter and grab people. He died 6 years later and at autopsy was found to have a large right-sided frontal lobe tumour. In 1882 Jastrowitz was head physician at Maison de Santé in Schöneberg. In 1888 he wrote a textbook along with the distinguished neurologist Dr E. Leyden titled (in translation) *Contributions to the Theory of Localisation in the Brain and Their Practical Utilisation*. From 1891 Jastrowitz was in charge of a private psychiatric hospital Berolinum in Berlin-Steglitz. He published works on therapeutic effects of chloral hydrate, mental disturbance after head injury, aphasia, sufficiency of one hemisphere for motility, sensory activity and intelligence of the whole body. On 6 January 1896 Jastrowitz presented the discovery of X-rays at a session of the Berlin Association of Internal Medicine for the first time in Berlin. His son Hermann Jastrowitz was an eminent physician in Halle but was sadly a victim of the holocaust in Auschwitz. Jastrowitz died in Berlin aged 73, but moria under another name has survived and remains firmly embedded in the diagnostic criteria for frontotemporal dementia.

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