

## Imagens em NEUROLOGIA

**Oskar Fischer and the neurofibrillary changes***Oskar Fischer e as alterações neurofibrilares*Eliasz Engelhardt<sup>1</sup> [<https://orcid.org/0000-0003-4168-1992>]

The Bohemian (presently part of Czech Republic) psychiatrist and neuropathologist Oskar Fischer (1876-1942), born into a German-speaking Jewish family, was an active researcher.<sup>1</sup> Among his scientific interest were neurodegenerative conditions, and the by him denominated 'presbyophrenic dementia' (*presbyophrene Demenz*) was one of his focus. There, he identified in a number of cases, pathological formations in the cerebral cortex he named 'drusiform necrosis' (*drusige Nekrose*), and later 'multiple cerebral filamentous spheroids' (*Sphaerotrichia cerebri multiplex*) [neuritic plaques], specifically related to the condition (1907 and 1910).<sup>2,3</sup> Additionally, he revealed by silver impregnation, in a subset of his cases with plaques, pathologic changes of the neurofibrils, described as 'coarse-fibred proliferation of the ganglion cells fibrils' (*grobfaserige Fibrillenwucherung der Ganglienzellen*) (1910).<sup>3</sup> (Figure) Similar pathological findings were already published by Alois Alzheimer, succinctly and without illustrations (1907),<sup>4</sup> and in a detailed manner a time later (1911).<sup>5</sup>

Contemporaneously, Emil Kraepelin, in the 10<sup>th</sup> edition of his 'Psychiatry: a textbook for students and physicians' (*Psychiatrie: ein Lehrbuch für Studierende und Ärzte*) (1910), considered Alzheimer's findings as a feature of a condition he named after him ('Alzheimer's disease' [*Alzheimerschen Krankheit*]). He also mentioned Fischer as the author who described 'presbyophrenia' (*Presbyophrenie*) related to the presence of 'plaques' (*Drusen*), but neurofibrillary changes, he also has described, were not mentioned.<sup>6</sup>



**Figure.** Coarse-fibred proliferation of [neuro]fibrils; in [a] the otherwise coarse fibrils are dissolved into numerous, fine, parallel running fibrils; the cell is un-nucleated. (Plate XV. Fig. 34 and caption from Fischer, 1910).<sup>3</sup>

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