

The development of the dementia concept in 19th century

Desenvolvimento do conceito de demência no século XIX

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ABSTRACT

The dementia concept has been reformulated through its history and the 19th century was remarkable in the construction of this concept as we understand it today. Like other syndromes, much of the history of the dementia concept comes from the attempt to separate it from other nosological conditions, giving it a unique identity. The fundamental elements for the arising of the dementia modern concept were: a) correlation of the observed syndrome with organic-cerebral lesions; b) understanding of the irreversibility of the dementia evolution; c) its relation with human ageing; and d) the choice of the cognitive dysfunction as a clinical marker of the dementia concept.

Keywords: dementia, neurology, history, concept, cognitive paradigm.

RESUMO

O conceito de demência vem sofrendo reformulações ao longo de sua história e o século XIX foi decisivo na construção de seu conceito tal como o utilizamos na atualidade. Como ocorre com outras síndromes, muito da história do conceito de demência reflete as tentativas de separá-la de outros distúrbios e conferir-lhe uma identidade própria. Os elementos fundamentais para o amadurecimento do moderno conceito de demência foram: a) a correlação da síndrome observada com lesões orgânico-cerebrais; b) a noção de irreversibilidade associada ao processo demencial; c) sua relação com o processo de envelhecimento humano; e d) a escolha da disfunção cognitiva como marcadora clínica do conceito de demência.

Palavras-chave: demência, neurologia, história, conceito, paradigma cognitivo.

The concept of dementia has been reformulated through its history and the 19th century was critical in the lift of this idea as we use it nowadays. In this paper, we present a historical developmental review of the dementia concept, focusing on the scientific contribution of the 19th century and we also make the attempt to bring to light the legacy of each medical school with its main characters (Charts 1 and 2).

Europe in the second half of 19th century was prone to the formation of creative groups that have left the legacy of priceless scientific and intellectual contributions¹. Many of these groups believed in the existence of only one mental illness – insanity – and that the multiple other clinical syndromes were nothing but degrees of one unique morbid process, and also “dementia” was thought as a final stage of it.

In 1880, the first concerns came up to attend to dementia not as a unique condition anymore, but as a diagnosis that could be better divided and individualized^{2,3}. Thus, the melancholic pseudodementia concepts, stupor, the most part of cognitive disorders associated to brain lesions and the

vesanic dementia began to be separated from the “umbrella entity” which was the dementia concept by this time.

After this ‘conceptual and nosographic cleaning’, what remained in the concept of dementia were, to a greater or to a lesser extend, the homogeneous groups of senile and atherosclerotic dementias.

Still in the 19th century, it has happened an expanding interest in dividing normal ageing from pathological senility, a very important fact, because it encouraged the development of histological techniques for the more detailed study of pathological ageing, forging a path to a better understanding and classification of dementias^{2,3}.

FRENCH SCHOOLS

Esquirol (Figure) converged, in the first half of the 19th century, all the psychiatric nosology into only five categories, of which dementia was also a part of. Dementia, in its turn,

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- 1) Distinction of dementia from:
 - a) *Delirium* (mental confusion) and other “acute psycho-organic syndromes”;
 - b) Idiocy (oligophrenia or mental handicap);
 - c) Psychosis and Stupor;
 - d) Praecox dementia (schizophrenia);
 - e) Benign forgetfulness related to normal aging.
- 2) Clinical-pathological correlation, i.e. the association of dementia syndrome with some brain lesion.
- 3) The notion of irreversibility associated to the dementia process.
- 4) The association of dementia with the aging process.
- 5) The choice of cognitive dysfunction as the clinical marker of dementia concept (‘cognitive paradigm’).

Chart 1. Important epistemological steps built in 19th century in the delineation of the dementia concept.

was divided into three kinds: acute, chronic and senile. His concept of senile dementia, even being super-inclusive, came much closer to the one used nowadays, as far as it was associated with older age, characterized by memory weakness (mainly in the recent memory), apathy, attention deficit

and its progression was also insidious. Thus, Esquirol described (in a very modern way) dementia as: “a cerebral affection ... characterized by sensibility, intelligence and will compromising” and demented person as: “a demented man is deprived of its precious features, he is a rich person turned

Esquirol: Separation between idiotia (oligophrenia or mental handicap) and dementia. Association of dementia with the aging process.

Georget: One of the pioneers in introducing the idea of irreversibility of demential process; gave a more organic vision in the approach of dementia concept. Contributed to the notion of irreversibility associated to the dementia process.

Guilain: Allocated the concept of dementia in the cognitive domain; separation between senile and early-onset dementia. Offered an operational definition for ‘cognitive failure’.

Morel: The association of dementia with the aging process; association of dementia with brain atrophy; neuropathological differences between demential process and normal ageing.

Emil Kraepelin: Detachment of dementia from ‘praecox dementia’.

Kraft-Ebing: The association of dementia with the aging process.

Griesinger: Distinction of dementia from *delirium*.

Chart 2. Summary of the main characters with their respective main contributions to the semantic allocation of the dementia concept in 19th century.

out into a poor one”⁴. We can understand, therefore, that around 1838, the clinical description of senile dementia was mostly complete. It was with Esquirol that the separation between idiotia (today, oligophrenia or mental handicap) and dementia officially took place, both forms associated with intellectual disorders^{2,3}.

Georget believed that there were only two irreversible states in psychiatry: idiotia and dementia. He stated that both were characterized by thought abolition, the first being originated by a “bias” in brain organization and the second by weakening, ageing or associated diseases⁵. Georget gave a more organic vision in the approach of dementia concept, what put him against more descriptive authors who were not concerned in finding the organic substratum that could explain the observed syndrome, like Pinel, Esquirol, Haslam, among others. His concept of dementia was therefore more restrictive and much closer to the one we have today. Beyond all of these contributions, Georget was yet one of the pioneers in the introduction of the understanding of the irreversibility of demential process⁵.

Guislain contribution was to link the concept of dementia with cognitive disorders, as we can assume by his descriptions about dementia: “all the intellectual functions

show a decrease of energy, external stimulus cause only minor impressions in the intellect, imagination is weak and too little creative, memory is absent and the judgment compromised”. Indeed, Guislain offered us one of the first operational definitions for cognitive disorder: “The patient has no memory, or is, at least, incapable of keeping anything in mind, impressions vanish from his mind. He can recall people’s name, but he cannot tell when he saw them previously. He does not know what time it is or the day of the week, he make no difference between morning or night, he cannot make calculations... he lost his instinct of self-preservation, he cannot avoid fire or water and is incapable of recognizing danger; he lost also spontaneity, he cannot control urine or stools and do not make any question about anything, he cannot even recognize his wife or children”⁶. Guislain described two forms of dementia, one affecting elderly people (senile dementia) and other for younger people⁶.

Morel supported a different taxonomy from the one used in his time and that was based in the cause. One of the clinical groups highlighted in this taxonomic scenery was dementia (defined as a general compromising of the intelligence), which was, in its vision, a terminal condition, in other words, again the concept of vesanic dementia, so important to the French. His understanding about dementia as a terminal condition is according to his “degeneration theory”⁷. He believed that mind impairment was always a sign before dementia itself and this belief would be changed later when he tried to explain dementia as a process of ageing or degeneration. Morel realized the relation between demential process and the loss of brain tissue, as well as the difficulty in differentiating and understanding the similarities between demential process and normal ageing. A negative repercussion coming out of the concept of dementia as a terminal condition was that, using his own logic, there would not be brain changes in dementias. It was Morel who defined the term “*praecox dementia*”⁷.

GERMAN SCHOOLS

Griesinger claimed that in at least five mental disorders there was a weakening in mental faculties: in dementia, in apathetic dementia (a condition including senile dementia, but that was not well described), in idiotism, in cretinismus and in chronic mania. Dementia, for him, was a state of mental weakening without *delirium*/hallucination and the main disorder was a general weakening of mental faculties: “growing incapacity for any deep emotion, loss of memory and loss of the power to reproduce ideas, fast forgetting for the latest events or those ones that took place during the demential state, but not infrequently with preservation of older memories related to a distant past; complete remissions never happen”. Griesinger supported a modified form of the unitary psychoses concept, in which mania, mel-



Figure. Jean-Étienne Dominique Esquirol (1772-1840).

anxiety and dementia were the three consecutive degrees of the same basic insanity^{3,9}.

Hoffbauer defended the existence of two bigger groups of dementia: the first characterized as a chronic condition and more irreversible (*Blodsinn*) and the second described as acute and reversible (*Dummheit*). The chronic group was subdivided into senile dementia (incurable) and secondary dementia, corresponding to the French vesanic dementia, that is, a final deleterious stage in many mental disorders^{9,10}.

Kraft-Ebing was concerned about making the difference between mental disease and senile dementia. He supported that senile dementia rarely took place before the age of 65 years old, and also that the genetic factors and external causes were not more important as triggers than the natural modifications of ageing like poor brain nutrition, anemia, atherosclerotic disease and cortical cells degeneration^{3,9}.

The final third in 19th century was largely ruled by the extensive contributions from the Emil Kraepelin group. Kraepelin separated praecox dementia (today schizophrenia) from other forms of dementia (paralytic and organic), a decision that helped a lot in a better definition of the dementia concept, making it more restrictive, less general^{3,9}.

In conclusion, the 19th century was decisive in the definition of dementia as it is understood today, and its importance is primarily due to the contributions of French and German psychiatric schools in the purification of this construct, in that various cognitive and psychotic syndromes were separated and thus the concept was progressively being restricted to the cognitive paradigm (i.e. the vision that the essential feature of dementia was intellectual impairment) applied to pathological aging process. The history of dementia during the 19th century is, therefore, the history of contributions to its gradual refinement.

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