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Bernhard Dattner (1887–1952)

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1 An outstanding neurologist of international distinction and an excellent teacher, Bernhard
2 Dattner began his career in Vienna as an assistant to Julius Wagner-Jauregg (1857–1940). He
3 emigrated to the USA in 1938 and became affiliated with several neurological institutions in
4 New York City [1].
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7 Dattner was born on 7 July 1887 in Ustroń, Silesia (Austria-Hungary, now Poland) and
8 studied law (1906–1911) and medicine (1911–1919) at Vienna University. He had several
9 highlights of his early career. In March 1911 he lectured before the Vienna Psychoanalytic
10 Society on Raskolnikov, the main character in Dostoevsky's *Crime and Punishment*. In 1919–
11 1921 he studied psychoanalysis under Sigmund Freud, and in 1920–1922 co-edited, with
12 Erwin Stransky (1877–1962), the *Proceedings of the Vienna Association for Applied*
13 *Psychopathology and Psychology*.
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16 Leaning towards neurology, Dattner joined Wagner-Jauregg's staff at Vienna University
17 Hospital, and adopted the 'genial thinking of the group who had united psychiatry with
18 natural science' [2].
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21 In 1921, he collaborated with Constantin von Economo (1876–1931) in treating
22 encephalitis lethargica patients with intravenous iodine solutions [3]. Dattner also used a
23 typhoid vaccine to obtain improvement in postencephalitic Parkinsonism.
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26 Wagner-Jauregg was beginning the malariotherapy of general paresis, and in 1923 he
27 chose Dattner as chief assistant in the neurosyphilis clinic. With Otto Kauders (1893–1949)
28 Dattner compiled the experiences of treating progressive paralysis, primary, latent and
29 secondary syphilis in 2000 patients [4] and advised international clinical institutions on
30 malariotherapy.
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33 Dattner was an analytical observer with a refined writing style. He authored entries on
34 neuroses, capillary microscopy, malaria-salvarsan therapy and lumbar puncture for the *New*
35 *Series of Medical Seminars* compiled by the Scientific Committee of the Viennese Doctors
36 Collegium (published by Springer in 1928). His articles included: 'Intramedullary spinal
37 glioma simulating disseminated sclerosis' (1921, with Hans Müller), 'New ways of treating
38 neurosis with an outlook on cyclical forms' (1926), 'Pharmacotherapy of neuroses' (1926),
39 'Critical remarks on the question of influencing organic disorders through suggestion and
40 hypnosis' (1926, with Emil John), 'Nutrition problems in neurology and psychiatry' (1927)
41 and 'Analyses of the somatogenesis of neuroses' (1929).
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44 In the pre-antibiotic era, general paresis accounted for almost one-fifth of all
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1 hospitalisations. Besides malariotherapy, Dattner experimented with typhoid vaccines,
2 trivalent and pentavalent arsenicals (mapharsen, neosalvarsan, tryparsamide) and bismuth
3 compounds. He published: 'Problems and results of paralysis treatment' (1924), 'Clinical and
4 experimental studies on malariotherapy' (1924, with Kauders), 'Importance of salvarsan to
5 supplement malariotherapy in progressive paralysis' (1925), 'Epicrises of malaria-treated
6 paralytics' (1928/1930) and 'Therapeutic effect of pentavalent arsenic compounds in late
7 forms of neurosyphilis' (1935).
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13 In his Nobel lecture in December 1927, Wagner-Jauregg acknowledged Dattner for
14 treating 129 paralytics in 1922–1924. He later recalled [5] that in spring 1922, Dattner
15 suggested the idea of inoculating patients with malaria before the onset of paralysis, based
16 on positive CSF results. Wagner-Jauregg referred Dattner to Josef Kyrle (1880–1926) at the
17 syphilis clinic. Despite his initial hesitation, Kyrle took Dattner's advice and reported their
18 results in September 1924 before the Conference of Natural Scientists in Innsbruck.
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25 By 1930 Dattner was convinced that the activity of neurosyphilis was accurately
26 reflected in the CSF. He designed a double-needle with a stylette ('Dattner needle') for
27 perforating the spinal dura mater. By 1933 he had conducted ambulatory punctures on 4000
28 patients without complications. In a monograph [6] prefaced by Wagner-Jauregg, Dattner
29 discussed the technique and theory, pathogenesis, treatment and prophylaxis [2]. The
30 modern literature vindicated his contributions, even though credit was not always given to
31 his pioneering efforts [1].
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39 The retired Wagner-Jauregg continued to be keenly interested in Dattner's work and
40 corresponded with him up to the time of his death. Dattner authored Wagner-Jauregg's
41 biography for *The Founders of Neurology* (Charles C. Thomas Publisher, 1953/1970).
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45 Upon arriving in New York, Dattner became an attending neuropsychiatrist at the
46 Neurologic Institute and Medical Service of Bellevue Hospital Psychiatric Division, and
47 Montefiore, Bronx and Goldwater Memorial Hospitals. In 1943, he was naturalised as a US
48 citizen and became associate clinical professor of neurology at New York University. In 1945
49 he received a joint appointment as assistant clinical professor of neurology at Columbia
50 University and later served as a consultant to the NY State Board of Health, the US Public
51 Health Service, and the UN World Health Organisation.
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59 With Herman Wortis (1910–1942), they presented in November 1941, before the New
60 York Society for Clinical Psychiatry, the case of a woman with autotopognosia (the delusion
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1 of the absence of an extremity resulting from thrombosis of the right middle or posterior
2 cerebral artery), distinguishing it from anosognosia.

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4 His collaborators in America included Lopo de Mello, Samuel S. Kaufman, Joseph E.
5 Moore, Evan Welling Thomas and Gertrude Wexler. After the discovery of penicillin and its
6 effectiveness against spirochetes, Dattner used it to treat progressive paralysis, first in
7 conjunction with malariotherapy, and eventually as the treatment of choice. In 1942 his first
8 paper in English was published, followed by half a dozen articles on the treatment of
9 neurosyphilis, criteria for management and the importance of CSF examination, and another
10 authoritative book on neurosyphilis [7].

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12 In September 1949, Dattner (Fig. 1) attended the Fourth International Neurological
13 Congress in Paris, where he presented the results of a 5-year study of 450 neurosyphilis
14 patients treated at Bellevue with penicillin [8]. He stressed the value of CSF tests for
15 differentiating symptoms unrelated to syphilis in luetic patients, and also introduced a
16 method for detecting loss of awareness of parts of the body in hemiplegia.

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18 The core of Dattner's approach was the absolute emphasis he placed on the diagnostic
19 and prognostic value of CSF analyses as indicators of neurosyphilis' pathological activity [7],
20 including the normalisation of cell count, total protein content and colloidal gold tests [9].

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22 Dattner died on 11 August 1952 from an inoperable brain tumour. He worked until a
23 few weeks before his death. His last paper, co-authored with Vernam Terrell Davis and
24 Charles E. Smith of the US Public Health Service Hospital in Staten Island, appeared
25 posthumously and concerned the subcortical variety of visual verbal agnosia (or alexia
26 without agraphia) in a right-handed Coast Guard officer who had sustained a parieto-
27 occipital skull fracture after being struck by a bus [10].

28 **Compliance with ethical standards**

29 **Conflicts of interest** The author declares no conflict of interest.

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31 **Ethical standards** This study was performed in accordance with ethical standards.

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Fig 1. Bernhard Dattner. Photo taken in 1949 in Paris by neuropathologist Webb Haymaker (1902–1984). Credit: National Library of Medicine.

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