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Influenza Psychoses in Successive Epidemics

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INFLUENZA PSYCHOSES IN SUCCESSIVE EPIDEMICS *

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Psychoses following influenza, as precipitated by the epidemic of 1890-1892 and reprecipitated by the epidemic of 1918-1919, make a particularly interesting study. Among the nearly 200 cases of post-influenzal psychoses studied at the Boston Psychopathic Hospital during the past year, only two such cases were observed. A third case, in which a psychosis had followed the earlier epidemic, was received at the hospital during this period, but without the history of recent influenza. These three cases are reported below.

These cases are interesting because of the question of specificity which Kraepelin¹ raised. He maintained that each acute infectious disease was probably capable of producing mental symptoms of a peculiar sort, a virtual "influenza psychosis," "typhoid psychosis," etc. This view has never been well supported, and as yet we know only that the psychoses following influenza are numerous and of great variety.² This might connote a quantitative specificity as contrasted with Kraepelin's qualitative specificity. In the case of many, some writers³ say nearly all persons, influenza has been followed by states of depression, irritability, irascibility, deconsolateness, etc., which undoubtedly represent *formes frustes* or mild forms of the psychoses appearing in bolder form in less fortunate subjects.

Why some persons should be particularly subject to the neurotoxin of influenza as these cases here would indicate, is as yet unexplained. In the cases cited below there must have been, during the three decades intervening between the two attacks of influenza, both of which were followed by such striking mental reactions, many incidents and agents capable of more or less psychopathologic damage; yet

* This is the fourth of a series of papers on influenza and mental diseases from the Boston State Hospital, Psychopathic Department, Series 1919.

○ 1. Kraepelin, E.: Kraepelin advanced this theory during his early work on the "symptomatic psychoses," but summarizes his views in his *Psychiatrie*, ed. 8, Leipzig and Vienna, 1912.

2. Menninger, Karl A.: *Psychoses Associated with Influenza*, II. Specific Data. An Expository Analysis, *Arch. Neurol. & Psychiat.* 2:291 (September) 1919.

3. Pritchard: *Nervous Diseases and Psychoses Following the Grippe*, *Internat. Clin.* XI, ser. 5; Osler: *Practice of Medicine*, New York.

apparently no cause produced a result such as was wrought for the second time by influenza, in the short course of a few days.

Another significance of these cases lies in their bearing on the relationship of the infection (toxic) psychoses to schizophrenia (dementia praecox). Postfebrile delirium and schizophrenia were by far the most numerous psychiatric sequelae of influenza.⁴ There is, moreover, the notorious⁵ similarity in symptomatology of catatonia and hebephrenia to the "postfebrile deliria." On this, in part, is based the thesis, by no means new, that delirium and some forms of schizophrenia may have a similar pathologic basis, and hence etiology. Cases such as those I present, in which an infection (influenza) or some other incident is followed by a psychosis which improves, only to reappear under renewed conditions of deleterious influence (here influenza, except in the third case) suggest the chemical process of reversibility, and specifically the reversibility or partial reversibility of schizophrenia. By extension of the hypothesis of the similar etiology of delirium and schizophrenia, and comparison with the phenomenon just noted, one can conceive that postfebrile deliria may represent, as the writer would propose, a form of reversible schizophrenia.

REPORT OF CASES

CASE 1.—A man, aged 49, with an unfavorable family history, was normal until he had an attack of influenza at 25. He was psychotic for a short time afterward, and had been queer for the past few years. He has had frank psychosis with conduct disorder since he had influenza in 1918.

Family History.—This embraces a psychotic father ("asocial, queer, brooded, suicidal"), an insane cousin, other "high strung" cousins, and a mother who had "a nervous breakdown." He was an only child.

Personal History.—He was not considered queer, asocial, stupid or abnormal either before or after the first attack of influenza. The medical history was negative; his habits were good. He did not marry.

First Attack of Influenza.—"About twenty-five years ago" he is known to have had influenza at the time of "an epidemic." Thereafter he was for a time "affected in his head," at least for a few months. In subsequent years he was very irregular at work, changing jobs often, usually without adequate cause.

4. Fell, E. W.: Postinfluenzal Psychoses, *J. A. M. A.*, **72**:1658 (June 7) 1919; Burr, C. W.: Mental Complications of Influenza, *Med. Clin. of N. America* **2**:709 (November) 1918; Harris, A. F.: Influenza as a Factor in Precipitating Latent Psychoses, *Boston M. & S. J.* **158**:22 (May 29) 1919; Menninger, Karl A.: Psychoses Associated with Influenza, I. General Data: Statistical Analysis, *J. A. M. A.*, **72**:235 (Jan. 25) 1919.

5. A point made by many writers, old and new. For example, see the textbooks of Kraepelin, Binswanger, Siemmerling, Paton, Regis; the monographs of Bonhoeffer and of Bleuler; numerous abstract discussions such as those of Hoch, Deny, Dide and others, and finally, the recent clinical observations and reports of Austregesilo, Harris, Fell, the writer and others.

For some years he has been rather paranoid, suspicious and queer, and has begun to do peculiar things, which, however, have been overlooked. Fits of anger and destructiveness, with attitudinization have also been noted. These symptoms have developed gradually during the last seven years, but they did not become serious until after the influenza.

Second Attack of Influenza.—This occurred in October, 1918. Thereafter his psychopathic condition became much worse. He manifested (for the first time) delusions and hallucinations, enfeebled intellectual processes and an emotional tone varying from silly euphoria to causeless agitation. Silliness was manifested in manner, speech and conduct.

Physically, he showed unequal pupils, slurred speech, hypo-active left ankle jerk, and right facial paresis, but otherwise nothing abnormal. All laboratory findings, including serum Wassermann and spinal fluid, were negative.

At first the case was considered, *a priori*, one of neurosyphilis, but laboratory findings disproved this, and the patient was considered merely hypophrenic. (His psychometric rating was 8.7 years, variation total of 17). However, increasing symptoms changed the diagnosis. He became more and more silly; he sat about the ward in fixed positions and without speaking a word for days at a time; he became mute and totally inaccessible. He voiced delusions of being "butchered" and "put in straight jackets." He became steadily worse mentally and was transferred, after six weeks' observation, to the Boston State Hospital.

Diagnosis.—Schizophrenia hebephrenica.

CASE 2.—A woman, aged 37, had influenza at 10 followed by psychosis and commitment to an asylum for ten years. She absconded and lived at large, being self-supporting for ten years, when a second attack of influenza (1918) precipitated symptoms requiring commitment.

Family History.—She had an alcoholic father and a sister, now 45, who has recently been committed to an asylum as insane; she is self-accusatory and depressed.

Personal History.—Birth and childhood were negative. She progressed to the third grade, and was considered healthy. She had diphtheria.

First Attack of Influenza.—At the age of 10 (1891) she had influenza. Not many details are known, save that thereafter she was "different"—she was "strange, contrary, ill natured and did not get on well with other children." She claimed that she was discriminated against, that she was abused, that her employers persecuted her and that people were jealous of her.

Finally, she was committed at about 17 years of age. She remained in the state hospitals for some ten years; then she absconded, and was taken in by some family. A friend of her family got in touch with her and heard from her frequently. She lived at large with some fair degree of success, but changed employment very frequently. This continued for ten years.

Second Attack of Influenza.—She was taken to the City Hospital with influenza, Jan. 18, 1919. She recovered and was up and about the ward, but "made irresponsible statements and was excitable." She was transferred to the Boston State Hospital.

She expressed great perturbation over being here, and hastened to assure every one that she was quite free from any mental trouble. She cooperated poorly and was evasive, arrogant, egotistic and irritable. She was seclusive, irascible and unpopular with the patients, and was antagonistic toward everything—physicians, nurses, baths, occupational therapy, etc. She was notably dis-

interested, and showed a poverty of ideation and emotion. No delusions or hallucinations were elicited.

Her psychometric rating was 10.3, with a variation total of 15, which is, of course, quite high. She kept saying, "Now I want you to tell me if it is not correct, for I'm perfectly willing to verify it."

Physical examination and laboratory findings, including fluid findings, were entirely negative.

Diagnosis.—Schizophrenia hebephrenica.

CASE 3.—A woman, aged 48, supposedly well educated until she had an attack of influenza in 1890, thereafter was gravely demented, but was useful as a domestic. In recent years she has become increasingly queer, and finally totally incompatible. This is a typical case of old schizophrenia. She probably did not have influenza in the recent epidemic.

Family History.—Nothing abnormal was revealed.

Personal History.—She is said to have been "a very well educated woman, and perfectly normal until she had the influenza during the epidemic of 1890."

First Attack of Influenza.—"The influenza struck her brain." She was "just like a child . . . quiet . . . never speaks unless spoken to. Wasted her money and threw away or tore up what she bought. Always talked incoherently." She was employed for the past twenty years by a family from whom this (the only) information was obtained.

Present Episode.—There is no record of her having had influenza during the 1919 epidemic. For a year she had been acting more and more strangely, ceased bathing herself, began to answer her mistress irrelevantly, etc. On the day of admission she "suddenly began to kick the puppy" and frightened her mistress, so that she was brought to the Psychopathic Hospital.

Mental examination showed marked dilapidation of all thought processes; disorientation, delusions of transformation, hallucinations, profound apathy, hypokinesia, and occasional resistiveness and negativism.

Physical examination and laboratory findings were wholly negative.

Diagnosis.—Schizophrenia hebephrenica.