THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XXIX.

WEDNESDAY, SEPTEMBER 13, 1843.

No. 6.

ON EPIDEMIC INFLUENZAS, WITH PARTICULAR REFERENCE TO THE EPIDEMIC OF 1843.

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[Communicated for the Boston Medical and Surgical Journal.]

SYNONYMS:—*Rheuma epidemicum* of Sauvages; *Catarrhus epidemicus* of Swediaur; *Catarrhus a contagio* of Cullen; *Amphimerina anginosa* of Huxam; *Febris remittens catarrhalis* of Macbride; by the French writers it is called *Folette*, *coqueluche*, *petite porte*, *coquette*, *baraquette*, *rhume epidemique*, *la grippe*, *fièvre catarrhale*; by the Italians, *Catarrho Russo*; by the Spanish, *Influenza Rusa*; by the Germans, *humerzipf der humer*, *wenn bletzkarr*, *epidemischer schenupfen*, *Russische krankheit*.

This epidemic affection received its name from the *influence* which the stars were supposed to exert in its production. It is usually accompanied by catarrhal symptoms more or less severe, and with a depression of strength disproportionate to the febrile excitement or the concomitant local affections. A mere epitome of what relates to this disease is all that we can give that would be of utility or interest to the profession.

History, progress and extent.—The occurrence of this disease can probably be traced back to the days of Hippocrates, as slight notices of a catarrhal affection resembling the one under consideration were given by him and some other of the ancient authors. Since then, the epidemics which occurred in 1311, 1323, 1327, 1387, 1400, 1403, 1410, 1414, 1427, 1438, 1482 and 1505, are supposed to have been instances of the same affection.

The epidemic of 1323 prevailed throughout the whole of Italy. That of 1387 prevailed at Montpelier and Romagne, and is said to have attacked nine tenths of the population. Although what we can gather from the short notices of the above-mentioned visitations by the old authors, renders it extremely probable that they were examples of the affection under consideration; yet it was never accurately described by medical writers until 1510. According to Schenck it was then regarded as a new disease. The epidemic of that year, proceeding from Malta to Sicily, Spain, Italy, France and Britain, raged all over Europe, and scarcely an individual escaped. The epidemic which prevailed in the autumn of 1557 took a westerly course from Asia by Constantinople to Europe, and afterwards visited America. It prevailed in Europe extensively in 1580,

and the course of the affection was from east and south to west and north. The epidemic raged at Sicily in June, at Rome in July, proceeded by Venice and Constantinople to Hungary and Germany, and thence to Denmark, Norway, Sweden and Russia, where it prevailed in December. In April, 1568, it prevailed in England chiefly. In 1590 and 1591, an epidemic similar to that of 1580, prevailed in Europe. It prevailed in 1663, and 60,000 persons are said to have been attacked in the Venetian States in one week. A similar disease prevailed in Holland in 1669. In 1675, Germany was visited in September, and England in October, by a similar affection. In 1729 and 1730 the influenza prevailed throughout all Europe, visiting every part of it in the course of five months, and attacked 50,000 persons at Milan, 60,000 at Rome, and the same number at Vienna. It was very fatal in Paris and London—destroying in the latter city 1000 a week. Switzerland suffered little, Italy and Spain very considerably. This catarrhal affection prevailed from 1732 to 1737. In 1732 it overran Europe and visited America. From New England it spread southward to Mexico, Jamaica and Peru. Catarrhal fever was prevalent in several countries in 1741 and 2. In 1743 it prevailed generally in Europe, under the name of “La Grippe,” a term which, Thompson suggests, was probably derived from the Polish word *chrypka*—hoarseness; but according to Dr. Forry it was derived from *gripper*, “to gripe,” “to catch hold of,” being the vulgar French appellation. In the spring of 1762 the epidemic became generally prevalent—having, however, appeared the previous year in America. It swept away one third of the inhabitants of Toulon, extended northward to Breslau, Vienna and Hamburg, and in a month passed from London to Edinburgh. It prevailed among the sailors of the Mediterranean in July. The influenza prevailed in Britain and on the Continent in the fall of 1775. The epidemic which was prevalent in England in the spring of 1782 appears to have arrived from the East. In September, 1780, the crew of the *Atlas*, an East Indiaman, suffered from the influenza on their course from Malacca to Canton. No instance of the disease had occurred at the former place, but on arriving at Canton they found that it raged there, associated with bilious complaints. In October, 1781, it prevailed in Bengal, on the Coromandel coast, with complications similar to those which attended it at Canton. In November, 1781, it attacked the army besieging Nagapatam; it prevailed at Astrachan, Tobolki and Moscow, in December; at St. Petersburg in January, 1782; at Strasbourg in February, spreading through Denmark and Holland in March; it arrived in England at the end of April. This epidemic attacked three fourths of the population. It was observed to visit cities before villages, and villages sooner than detached houses. It took five weeks to pass from Edinburgh to Musselburgh, which lies five miles to the south-east. At St. Petersburg 40,000 persons are said to have been attacked in one day. In 1803 the influenza prevailed very extensively, and advanced in a northerly direction. In France it was followed by ophthalmia, and in America by dysentery. In England the disease prevailed among horses, cows, sheep, swine, dogs and cats. In September, 1830, the disease

appeared at Manilla, and reached Britain in the spring of 1831. This epidemic was widely diffused, prevailing both on the eastern Continent and in America. In many parts it preceded the epidemic cholera. In 1833 the cholera was followed on the eastern Continent by influenza. In 1836 and 7 this affection prevailed in various parts of the world—at Sidney and the Cape of Good Hope, and on the shores of the Baltic. Half the population were attacked in London, Hamburg and Copenhagen.

We have now traced the visitations of this epidemic down to the present year, and we might go on to state their peculiarities, but will not burden this paper with a detail of them. Dr. Theophilus Thompson, of London, thinks we may deduce from the history of the influenza, that it has occurred on an average once in ten years.

We come now to speak particularly of the *present epidemic*. Its incursion was sudden, its extension rapid, and its range wide. An Albany paper states that it commenced in the northern part of this State, but we think, that from the rapidity of its extension, it would be difficult to designate the very place of its outbreak. The first notice which we find of it is in the Albany Atlas of June 8th. It says:—"There *seems to be* something like an influenza prevalent—among the subjects of which are a large portion of the printers connected with the different offices in this city." We are not able to designate the time precisely at which it commenced in New York city, but it is said to have commenced on the 12th of June, the day on which the President arrived there on his way to the Bunker Hill celebration, and was hence facetiously termed the "Tyler grippie" or "grip." We presume, however, that it might have commenced two or three days earlier, without exciting the suspicion of its being epidemic. About the 14th or 15th it was stated that 60 of the crew of the North Carolina were confined in the hospital from the effects of this disease. On the morning of the 17th of June, the packet ship Liberty arrived from Liverpool with 275 passengers, most of whom, with the captain, were down with the influenza, which attacked them at sea about a week previous to their arrival. This is equal to the case of the East Indiaman spoken of above. One of the New York papers of June 14th says:—"The prevailing epidemic attacks all ages and constitutions. The symptoms are great prostration of strength, sore throat and bad cough. It is very obstinate, and requires prompt and rigid treatment to drive it away." We have not been able to learn the time of its appearance at Boston, but it is said to have been extensively prevalent among those who were on their return from the Bunker Hill celebration of the 17th. Of some hundreds of emigrants who arrived at New York the last of June, not one escaped while lying in quarantine. We think that Philadelphia was invaded by the epidemic later than New York. From the 20th to the 25th thousands were said to have been down with it in that city.

The influenza commenced in this city on the 9th of June. On the 9th and 10th several cases occurred, and from the similarity and character of the symptoms there was a remote suspicion in the minds of some

that it was epidemic. A gentleman connected with one of the daily papers informs us that he was attacked on the 11th, and that the febrile and cerebral symptoms were of a very severe character, especially at the onset of the attack, and that fainting occurred repeatedly on attempting to maintain the erect posture. These symptoms were accompanied or immediately followed by inflammation of the larynx and bronchi, and soreness extending down the anterior walls of the chest. A very large proportion of the inhabitants of this city have suffered from the epidemic, but in a great majority of cases it has required only the mildest remedies, or none at all. It prevailed extensively in Buffalo, commencing soon after its appearance in this city. In Pittsburgh, Pa., whole printing establishments and iron manufactories suspended operations for its entertainment. Few houses escaped the calls of this unwelcome visitor. It made its appearance at Milwaukee about the 9th of June—quite as early as in this city. From late accounts we learn that it has reached St. Louis, touching Cincinnati and Louisville on its way, and not only touching them but taking them by the very throat. It has sent a detachment south to Baltimore, Washington and Charleston, and most fearlessly has it meddled with the noses and throats of the “chivalrous.” One of the New Orleans papers of the 18th of July says, that two thirds of the inhabitants of that city were suffering from the influenza.

At Quebec the journals speak of its prevalence to an “alarming extent.” It has also visited New Brunswick. Late accounts give information of its existence in London and Glasgow.

Causes of the Influenza.—As to the origin of these epidemics there are various theories, many of which are plausible, and others vague and untenable. Some attribute the influenza wholly to the *atmospheric vicissitudes of temperature and humidity, and the prevalence of particular winds.* This theory has many supporters, and it is not strange that it should have, since such vicissitudes have been so very frequently observed to prevail previous to or during the existence of the epidemics. Thick offensive fogs have been spoken of as a cause; easterly winds have been invoked, and sudden changes of temperature have come in for a share of the productive causes. But that these meteorological conditions fail to explain the causes of the influenza, is evident from the fact that it has occurred during every possible variety of atmospheric phenomena—in all seasons, in every climate, and in the midst of the ocean, as well as in the interior of continents. Just previous to the incursion of the present epidemic, the weather changed from a mild May air to a very low temperature. On the morning of the 1st of June there was a slight fall of snow in this city, and the ladies were observed in the streets in the afternoon with their hands ensconced in muffs, as though it had been a December day. The thermometer at sunrise was down to 36 deg. This was followed by cold, damp weather, accompanied by dense fogs, for several days. On the 9th, the day on which the influenza was first observed here, the thermometer rose to 84 deg.—the mean for the day being about 73 deg. At the acme of the influenza in this city, the temperature of the atmosphere for several days ranged

from 86 to 96 deg. We must regard these vicissitudes as mere coincidents and not causes of the epidemic. The *electric theory* has been invoked, but the experiments of Volta himself "failed to detect any electrical changes in the atmosphere of the affected places." It has also been called *contagious*; but we must regard this as the least tenable theory yet advanced. The suddenness with which it appears over vast extents of country—attacking in some instances "whole kingdoms at once"—clearly indicates its non-contagious character.

The last theory in relation to the causes to which we would refer, is the one which attributes the disease to the diffusion of a certain *malaria*, or *materies morbi*, through the air. The existence of this malaria has never been demonstrated by the nicest experiments of the chemist; yet reasoning from analogy, we may conclude that such *materies morbi* do exist, for, although we have abundant reason for believing in the existence of a *miasm* which is the prolific source of intermittent fever, yet this miasm has never been detected by the most careful operations in analytical chemistry. Without entering into the discussion of the various speculations under this head, we would say that we are fully inclined to the opinion that the epidemic is caused by some peculiar virus or noxious matter diffused through the atmosphere. As we before observed, this has never been detected by the nicest chemical manipulations; but this does not detract from the probability of its existence, for the reasons assigned above. One of the strongest considerations we have for referring the origin to malaria, is the *striking identity of these epidemics* at the different periods of their visitation, and in different countries. No one can fail to notice the great similarity of the symptoms of the influenza of 1836 and 7, and that of the present epidemic. Indeed the identity of the two is settled beyond a doubt. So also with the epidemics of 1675, 1762, 1733, 1743, and 1833. It is clear that this identity cannot be explained by a reference to atmospheric vicissitudes, however great they may have been; but that these changes in the weather may have had a modifying influence upon the disease, we are not disposed to deny. Dr. Forry, in his excellent article on epidemic influenza, after defending the position which he takes—that the influenza depends upon some peculiar virus, a *materies morbi*—says: "Upon the whole, it is most probable that the atmosphere is the medium in diffusing the virus, and that modifications result not only from changes in this medium, but from the endemic influences of particular localities."

Symptoms.—Of the peculiarities of the various epidemics we need not speak. The symptoms of the present epidemic bear the same general characteristics of those which have preceded it. It is generally introduced by a slight chill, sometimes followed by rigors. There is great lassitude and depression of strength, pain in the head, back and lower extremities. The pain in the head is at first very severe, attended by a determination of the circulation to the brain, coryza and an acrid discharge from the nose. This is generally followed by inflammation of the fauces and larynx, attended with a severe cough and soreness, extending down the anterior walls of the chest, with a sense of constrict-

tion of the chest. In some cases the cerebral symptoms have been of a very severe character, amounting in some instances to actual inflammation. Inordinate depression of strength and vertigo, have been very prominent symptoms in this epidemic. In many instances the disease has assumed the form of pleuritis, and sometimes that of pneumonia. The complications of this affection have varied with the predispositions of the individual attacked, as well as with the endemic influences of the locality. In some, tonsillitis is the complication, while others are affected with bronchial mucous inflammation, attended with difficult and oppressed breathing. In very many instances, especially in children, the lining membrane of the stomach and bowels was affected, as manifested by diarrhœa and mucous discharges. In many cases the inflammation of the schneiderian membrane commenced and progressed as the inflammation and soreness of the throat subsided. The duration of the attack is usually from one to seven or ten days, but in some instances continuing much longer. In our own case, it terminated on the evening of the first day by profuse perspiration, without any medical treatment.

Prognosis.—The mortality of the influenza has varied with each occurrence of the epidemic. It is said that during the influenza of 1580, 9000 died of the disease at Rome, which, according to Wierus, was in consequence of bleeding. The epidemic of 1729 and 30 was very fatal at Paris and London—destroying in the latter city a thousand a week. But notwithstanding these records of mortality, it is true that *uncomplicated* influenza rarely destroys life. According to Ozanam, who made a calculation of the mortality of all the recorded instances of epidemic catarrh, the deaths, as far as could be ascertained, were about two per cent. of the number attacked. Dr. Forry thinks that the mortality in the city of New York is much greater than two per cent., and that a thousand shall, in the course of six or twelve months, be numbered among the victims of the present epidemic; and he fully establishes this view by a digest of the weekly reports of interments in the city and county of New York. He says that “in those who have died of the malady, anatomical examinations generally reveal some associated disease—for example, the chief victims have always been found among the aged and asthmatic, those susceptible to disease of the lungs and of full oppressed habits.”

From a careful digest which we have made of the “Reports of Interments” in this city, during the months of June and July, for the last six years, we arrive at the conclusion that the bills of mortality have been greatly increased during those two months of this year, by the influenza, complicated though it may be. The average number of interments in the month of June for six years past (including 1843) is 32; while the number interred this year was 46. The average number of interments in the month of July for the same period, is 38; while the number interred this year was 58, which was greater by sixteen than the highest number for any month of July for the last five years. The number of deaths reported from influenza in June was only two, and the same number in July; but please notice the great increase of deaths from “summer complaints” and inflammation of the bowels in July. For

the last five years the average number of deaths in the month of July from summer complaints (so termed in the Reports), was two, and the number from inflammation of the bowels, three. The number of deaths from "summer complaints" in July, 1843, was 12; and the number from inflammation of the bowels, 5. The number of deaths in June, from inflammation of the bowels, was 7—which was a larger number than ordinary for that month. On the decline of the influenza in this city, large numbers of children were affected with diarrhœa of a very prostrating character, and at one time it threatened a great destruction of that class of patients. The diarrhœa in many, if not most cases, supervened on the ordinary symptoms of the influenza.

The *pathological appearances* exhibited in those who have died of influenza are chiefly as follows:—the mucous membrane of the larynx and bronchi is of a deep-red color, flakes of lymph are sometimes observed on the cordæ vocales and in the ventricles, the trachea is found injected and covered with a glossy-looking mucus, the lungs are surcharged with a sero-mucous looking fluid, the lower portions being engorged and sometimes consolidated.

Treatment.—Although there has been an apparent discrepancy in the views of the profession, at different periods, in regard to the treatment of influenza, yet it is clearly owing to the variation of the symptoms which constitute the peculiarities of the different epidemics. In the ordinary manifestations of the disease, little else is necessary than to regulate the diet. Indeed, hundreds of thousands are cured by the recuperative efforts of nature alone, and in very many instances homœopathy and animal magnetism have had the credit of it. Shades of Hippocrates! What! the influenza cured by infinitesimal doses of the shade of a shadow! And three sweeps of a magician's wand, and as many repetitions of the incantations of the juggler, put to flight all the pain, and dyspnœa, and cough, and coryza, and aching bones and bursting heads, which this "raging epidemic" would compel us to bear! Yes, so say the worshippers of Hahnemann and Mesmer.

When it becomes necessary to employ remedies, it is generally sufficient to administer some active saline cathartic. Thompson strongly recommends at the onset of the disease a dose of calomel, combined with comp. ext. of colocynth, followed by a saline purgative. If it is found necessary to repeat the cathartics, those of the mildest kind should be selected, for the frequent exhibition of purgatives tends to increase the irritability of the intestines and dangerously depress the vital energies. With regard to the propriety of bloodletting, there is a variety of opinions. Ozanam says, that of 52 epidemic catarrhs which have prevailed in Europe, bleeding was found useful in 39, hurtful in 10, and useless in 3. In determining the question of bloodletting, we are to be guided by the state of the pulse; but still, we must be aware of the fact that inflammations in this disease are to be treated less actively than in sporadic cases. We have seen cases, however, complicated with pneumonia and pleuritis, in which prompt bloodletting was productive of signal relief. Both Dr. Thompson and Dr. Forry speak disparagingly of the use of opium,

at least in the onset of the disease—affirming that it increases the febrile irritation, aggravates the pain in the head and checks expectoration ; but we must be allowed to express our opinion that when opium has such effects, it has not been administered in proper doses. They describe *the effects of a small dose* in inflammatory affections, but *not the effects of a large dose*. It must be given in sedative doses, be they more or less. Of the management of the various complications of influenza, I need not speak ; suffice it to say, however, that they are to be treated on general principles.

Sequelæ.—Thompson remarks that there is reason to believe that a modified condition of the atmosphere may remain for years after the prevalence of the epidemic, and occasion a liability to affections of a similar character, to which the term *influenzoid* might be applied. But we think it much more reasonable to suppose that this liability to bronchial affections is a sequela of the original attack, rather than that there exists an “influenzoid” atmosphere. The structures upon which the epidemic spent its force, are for years in some subjects susceptible of derangement, and hence we have as sequelæ, chronic bronchitis, asthma, rheumatism, neuralgia and intestinal irritation. There is abundant evidence that phthisis is often called into activity in those of a tubercular diathesis ; and hence we may infer that for several years to come, the mortality from that disease will be greater than for a few years past. Endocarditis and pericarditis have also been observed as sequelæ. Obstinate dyspepsia, and other functional disorders of the digestive system, are among the consequences of the epidemic.

Rochester, N. Y., Aug., 1843.

SYMPATHY—METASTASIS.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—The literal meaning of sympathy, is the suffering or affection of two separate parts of the body at the same time. The term sympathy is derived from a Greek word signifying to *suffer together*. The ancients, who were given more to observation than to theory, probably intended no more by the term than its literal meaning imports. But, alas ! how many conjectural principles in science and medicine, have been the mere spawns of old Latin and Greek words. We have deified these old languages, and peopled them with a race of mental images to which Hippocrates and Galen were total strangers.

The principle termed sympathy is not true ; it is not founded on facts. It is founded upon loose and careless observations. Mysterious affinities have been supposed to subsist between different parts of the body ; between the uterus and breasts in females ; and between the throat and testicles in males ; between the stomach and brain, the brain and the liver, the kidneys and the stomach, &c. These affinities, which amount in fact to independent beings, little deities, are supposed by many medical writers to be almost innumerable.