

small that I cannot believe it should induce the surgeon to recommend the removal of a breast so affected for that reason alone. If, in spite of careful treatment, a localized tumor and pain still persists, then an operation is advisable. The value of such a breast as a secreting organ is probably destroyed. Personally, I have little faith in the transformation of a benign into a malignant growth as a common event. That such instances do occur I am willing to admit, but I think it more likely that most of those cases which turn out malignant have in their origin been malignant and mistaken for benign troubles. There is no doubt that even with the aid of the microscope we are often unable to tell positively whether a certain growth is malignant or not; how much more liable then is the clinician to make the mistake? The dividing line between fibromas and sarcomas is not always well-marked, and the same is true of adenoma and carcinoma.

In conclusion, I would recall to your attention the necessity of a careful examination before giving an opinion. Retraction of the nipple, even when associated with a hard growth and an enlarged axillary gland, is not pathognomonic of carcinoma. One of these patients was assured she had a cancer. The unnecessary distress caused by such an announcement can easily be imagined.

Another point which these three breasts illustrate is, the influence a lack of proper protection and support have upon the progress of the affection. Had these been applied when the trouble first showed itself, its progress would probably have been checked at once, the disease permanently cured, and not have continued for years.

In cases of suppuration of the breast one is too liable to dispense with dressing and support as soon as the wound has closed, forgetting that there is a mass left behind which, from continued irritation, may be the starting-point of a chronic inflammation, resulting in a more or less circumscribed fibroid thickening. A continuance of careful support and protection would probably cause a complete resolution and disappearance of the inflammatory products, leaving the breasts but little altered from their previous healthy condition.

POINTS NOTICEABLE IN THE EPIDEMIC OF 1889-1890.¹

BY BENJAMIN E. COTTING, M.D.

THE affection recently and in many places, still upon the people, demonstrates on a grand scale the doctrines frequently heard in this Society within the last thirty or forty years; namely, that any disease, though ordinarily sporadic, or, in occasional outbreaks, usually confined to limited localities, may from time to time spread out with greater or less violence, cover large territories, and sometimes nearly or quite encircle the globe; and that this takes place from apparently inherent causes of which little or nothing is as yet known—the affection passing over land and sea unrestrained and unmodified—starting up as unexpectedly perhaps and pursuing its zig-zag course, avoiding one spot and seizing upon another, as arbitrarily as the tempest or the hurricane. Sanitary cordons and governmental edicts seem to have as little

influence in such cases as danger-signals on the gale or tornado. If the learned meteorologist, when asked the cause of storms, could with propriety answer "*the sun*," with equal propriety may the sanitarian, mindful of Nature's plan, attribute diseases and their movements to *humanity*.

However originating or propagated, all epidemics must appear where there are human beings, sedentary or in motion; and if the morbid influence (micro-organismic?) pass out beyond habitable regions, as quite likely, its presence there can be shown only by attacks on casual passers into such places. Ships, which after having left unaffected ports, have had their crews attacked in mid-ocean, afford conspicuous evidence of the diffusive tendencies of epidemics.² Other like proofs are not wanting.

So far, this time (without hindrance to science), the "traditional trunk" has not been brought into requisition; raiment and rags have not been charged with spreading the infection; and the postal-card has escaped with only an occasional or mild imputation.³ The "authorities," here and elsewhere, seem to have contented themselves with noting the coming and progress of the affection, numbering its victims, and counting up and tabulating the casualties.

Whether the epidemic originated in the Philippines, or started from Northeastern Russia, or elsewhere, is of interest chiefly to the medical historian. It is noticeable, however, that it has gone on its own way apparently without any attempt to arrest it, and seems to be disappearing through laws of its own.

Thus in departure, as in onset, this epidemic has differed little, if any, from those of former times; or, indeed, from epidemics of other diseases. That of 1658, according to Willis, "ceased of itself," like so many others. Some few years ago, a London authority said of a small-pox epidemic of considerable duration, but then suddenly come to an end, "*whence* it came no one can tell, *why* it has disappeared no one knows"—a conclusion worthy of commendation for truthfulness and candor.

If the outbreak of a disease is mysterious, its continued absence occasionally from a place is equally so—abundance of material apparently always remaining. For some years, not long ago, typhoid fever was unobserved in a neighboring town, but now and for some time past, the locality cannot boast of such exemption. A curious confirmation of our general doctrine has been given, apparently unintentionally, in a recent statement of an eminent specialist, that, without any apparent alteration in the condition or habits of the people, *scabies* had in his experience been more than

² In 1837, on board H. M. S. Thunderer, "at sea," the epidemic "suddenly made its appearance while she was on her homeward passage from [unaffected] Malta, four days before she arrived in Plymouth," her destined port. (Syd. Soc. Influenza, p. 359.)

In November, 1848, cholera broke out, nearly simultaneously, in two vessels in mid-ocean, about a thousand miles apart, one sixteen days out and the other twenty-seven, from an unaffected port. (Br. Med.-chir. Rev., No. 72, p. 444.)

The curious searcher may find probably many similar instances; but these are enough for examples.

In 1837, a professor told me, a medical student, of a case (with names and dates) wherein, after a long passage from an unaffected port in the East Indies, a passenger, the day after arrival home, without known exposure, was taken down with scarlet fever. The infection must have been far off-shore, or the attack culminated without incubation. There was not the slightest chance to attribute the disease to any kind of luggage whatever.

³ The weather, which, while it may occasion multifarious discomforts and disorders even, probably has little or nothing to do with the rise and progress of epidemics, if indeed of ordinary diseases, generally comes in for its share of blame. This year it is its variable mildness. Fortunately for those attacked there have not been any very low degrees of cold. Of the epidemic of 1693, one English writer says there was in January "a very stinking fog!"

¹ Desultory remarks at a meeting of the Norfolk District Medical Society, January 28, 1890,—on being called upon by the President for an "oral communication" on this subject.

once absent, for years at a time, so as to render it then impossible to obtain specimens enough to demonstrate adequately the affection to the students at the Medical School.

Abroad, one of the principal questions under discussion appears to be whether this disease is itself or something else, — whether it is the same as, or akin to, the French “la grippe,” the tropical “dengue,” the English “influenza,” or “the grippe” of this country; whether, in short, anything like it ever occurred before. This question also is of no very great importance (our concern being with the exigencies of the present), since no two epidemics have been exactly alike, any more than two individual cases of any common disease are absolutely identical. Moreover, the terms used in descriptions vary so much from generation to generation, that exactness of meaning is rendered often difficult if not impossible.

The passing epidemic may be peculiar, perhaps, in suddenness of attack, rapidity to a crisis, quick subsidence of urgent or distressing symptoms, disproportionate debility or lassitude in lengthened convalescence, — though not without parallel instances in the epidemics of old or of those within our own time.

Of course, such a rushing disease must have an “appropriate treatment,” and many are the plans suggested; but it is doubtful whether any better can be devised than that recommended in past times (that is, by Rainey) — namely, rest in bed, warmth, mildly modified diet, and very careful avoidance of over-exertion or exposure during the long convalescence. Such a procedure, according to most authorities, seems sufficient for even the severest cases. The French, judged by their journals, now put their chief reliance upon antipyrine and opiates; but a writer from Paris states that there “the symptoms put down as influenza are in many cases those described as due to overdoses of antipyrine . . . really due to the action of the remedy.” The English methods are very varied; and, of course, sufficiently disturbing. The rapidity of the symptoms seems to puzzle those intent on “a course of treatment.” A last dictum, with a caution against antipyrine, suggests a return to the old fashion of treating symptoms, and, omitting venesection and mercurials once considered essential, offers as agents therefor “diaphoretics, anodynes, stimulants and tonics,” — a range of medication one would think sufficient for the onset, progress and termination of this or any other disease.

Although much good has been attributed hereabouts to some of the above mentioned drugs, antipyretics especially, some of the cases, now as of old, where the onset was of the most severe and painful form, have passed to a crisis and to a happy termination without any medication whatever, — the severest pains disappearing spontaneously in less time than usually required for the effect of an opiate. If imaginary doses have been followed by the lucky results blatantly attributed to their agency, surely “expectation” may be resorted to without fear of unpleasant consequences.

The total number of deaths directly or indirectly from the present disease (however named) will doubtless prove to be very large, as large perhaps, as that in any epidemic of cholera, again unwisely foreboded, or of yellow fever; yet no epidemic of like extent ever caused so little alarm among the people, chiefly because before its appearance it was not proclaimed a fatal affection, — the moral of which is self-evident.

USE OF RESORCINE IN WHOOPING-COUGH.¹

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It is probable that no disease has been combatted unsuccessfully with a larger number and a greater variety of drugs than has whooping-cough. Sedatives, antispasmodics, anæsthetics, alteratives, tonics, astringents, vapors, inhalations, change of climate, sea-voyages have all been tried and still the old rule of six weeks coming and six weeks going, holds more or less true in the great majority of cases.

That it is contagious and attacks the same person only once has led it to be considered a germ disease and numerous investigators have undertaken to discover its cause. Affanassieff² claims to have found a bacillus in pertussis which can be cultivated, causes convulsive cough in animals and is found post-mortem in the respiratory mucous membranes, always in the bronchi, sometimes in the trachea and even in the nose and the foci of broncho-pneumonia.

Dr. Smetchenko found this microbe in fourteen consecutive cases, four of which were fatal, while it was always absent in bronchitis, asthma, catarrhal pneumonia and tuberculosis. It appears in the sputum in the catarrhal stage, somewhere about the fourth day of the disease. Later, it increases in number in proportion to the increase of the paroxysms and disappears from the discharge somewhat before the complete cessation of the whoops. When pertussis becomes complicated with pneumonia the bacilli increase immensely. It was killed during cultivation when the medium (jelly) contained corrosive sublimate 1 to 60,000, resorcinol or phenol 1 to 1,200 or by bioclhorate of quinine 1 to 800.

Wendt³ was unable to detect the bacteria so early and found no proportion between their number and the paroxysms. He found them also after the whoops had ceased.

The above observations, like many other statements are important if true, but they need verification. Without expressing an opinion as to their correctness, it is, of course, possible to test clinically the value of the solutions which are said to be fatal to the bacillus. Dr. Moncorvo of Rio de Janeiro has reported in detail in a pamphlet entitled, “De la Coqueluche et de son Traitement par la Résorcine,” a large number of cases treated by the topical application to the larynx of a one or two per cent. solution of resorcinol. Many of these were severe and complicated cases, but all were soon cured, some in a few days.

Resorcinol in an aqueous solution of this strength has practically no taste or odor, does not irritate the mucous membranes and is not poisonous. A five per cent. solution seems to irritate and I found a two per cent. solution sufficient. I will give some of the details of its use in two cases of the same family. A and B, aged seven and five years, had been coughing for two weeks, the severe, incessant, nagging cough of the first stage of pertussis. Ordinary treatment had almost no effect and applications of cocaine, even up to twenty per cent., were of very little use. The whooping stage now commenced with considerable violence, so that the younger child was not able to eat any of

¹ Read before the Boston Society for Medical Improvement, January 13, 1890.

² Baumgarten: *Lehrbuch der Pathologischen Mykologie*, 1888, p. 784.

³ *Med. News*, Philadelphia, June 2, 1888.