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OBSERVATIONS ON THE PESTILENTIAL CHOLERA OF 1832-3.

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As the public are under considerable alarm about the pestilential cholera revisiting this kingdom, on its progress north-westward, from Persia and Koordistan, and presuming it may not be unseasonable to review our former experience of this dreaded scourge, and, moreover, to make known to our younger brethren who have entered the profession since that period, some of the leading features of the epidemic, I have taken the liberty of sending a few observations, which I have extracted from my case book, and which were recorded at the close of each of the two years' visitation of the disease, but have never hitherto been published. In the absence of all apprehension of the epidemic being about to revisit us, such resuscitated remarks would be out of place, as they would certainly be scarcely worthy of perusal; but any contributions on this subject from contemporary practitioners who witnessed the former epidemic, will, it is thought, be not unacceptable to your Journal; and a reciprocal refurbishing and cleansing up of our old armour may better enable us to meet the enemy, if it should please Providence to permit it to come among us.

Though I have several notes of individual cases recorded at the time, I shall only extract the concluding observations which I made at the close of the two pestilential seasons, in 1832 and 1833.

PESTILENTIAL CHOLERA IN 1832.

The disease having appeared in Sunderland in October, 1831, and since diffused itself through nearly every district and town in the three kingdoms, with more or less violence, but now at this date has almost disappeared, the Central Board of Health, at London, having also ceased to publish even weekly reports, I think it useful to record a few concluding observations on the subject. My observations have been confined to what I have witnessed at the Cholera Hospitals at Liverpool and Manchester, from two days attendance, along with the cases which occurred in Great and Little Bolton, which did not exceed ninety cases in all, more than the third of which were fatal.

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Observed symptoms.—In the mild cases, or the incipient stage, diarrhoea, with flatulence, but without griping; scanty or difficult urine; inappetence or nausea, or slight vomiting of inodorous or acid matters; slight confusion of intellect; dulness of the senses; constriction of the features; debility; cramps in the toes, or calves of the legs. All these symptoms were so far under the power of medicine, such as calomel and opium, external warmth, slight aperients, and astringents.

Acute seizure, or second stage.—Frequent purgings of turbid gruelly motions, followed soon by vomiting of similar fluids, the attack commencing suddenly in the night, between midnight and six in the morning generally. Severe and painful spasms soon ensued, affecting the legs and toes, more rarely the arms and fingers, extending to the abdominal muscles; vomiting at times like forcible squirts; great thirst; cool breath; pinched and anxious countenance; skin soft, clammy, and inelastic; urine suppressed; pulse small, retiring, and vasculating, all of which symptoms soon run into the *third* or—

Asphyxiated Stage.—Pulse more feeble, easily suppressed, or gone from the wrist; breath cold; eyes muddy and suffused, expressive of fear, or sunk in their sockets, with the circle of the palpebræ of a livid, or a earthy lurid hue; features collapsed; breathing slow, sometimes heaving; posture drawn to one side, and the patient inclined to retire from notice, or stretched on the back with open mouth; tongue cold, drier, with a yellow coating; thirst great; hearing dull; hands and legs cold and shrivelled, fingers more remarkably so, and even corrugated in labouring people; nails blue; neck and breast very livid; buttocks and thighs sometimes very much so. The body had a peculiar sensation to the touch,—much resembling a dead skin stretched over a living frame, as if the vascular connection had long since ceased between them, and when or wherever the body felt warm, it appeared as if the skin acted as a condenser, and partook of no vital nor calorific communication. This condition of the surface was very peculiar and diagnostic, especially since often after death, the body acquired a renewed warmth from *physical* diffusion, which the skin failed, during life, to transmit by *vital* continuity. The heat of the corpse re-appeared in several cases from two to six hours after death, and it often continued for twenty-four hours, and in some cases much longer than it does in persons dying from

acute or phlogistic diseases. The sensation imparted by the skin to the hand, even in mild cases that recovered, as well as in the asphyxiated ones, was so diagnostic, that in my limited experience, I took it as the most characteristic symptom in determining this species of the genus cholera. Some practitioners have even said, that they felt a shock, somewhat similar to that from galvanism at the moment of touching a patient so afflicted. To resume, the urine was always suppressed; purging—of an involuntary and draining nature, except when entirely stopped; voice—a whisper, or gone. The voice was also very diagnostic in mild and recoverable cases, and sufficient to betray the impending and probably more severe attack, if not timely prevented.

Treatment.—The mild or gently incipient stage was easily and successfully treated, but the asphyxiated cases were nearly hopeless. The vomiting and purging were not so formidable to combat as the state of the circulation. In this latter stage various remedies have been used, for which the journals may be referred to, but from all that I have seen and heard, I incline to a small bleeding in stout subjects; smart doses of calomel and croton oil, repeated to the second or third time; then small doses of the former, with capsicum and camphor; non purgative saline medicines, combined with ammonia. I have seen benefit from an emetic of salt and water at the commencement, followed by small doses of *Oleum Terebinthinæ* or chloric æther. No opium unless there were spasms or active purging or vomiting, with heat of body. I have seen this drug tend to narcotize, and if consecutive re-action take place, the opium seems to be absorbed nearly all at once, and the brain is consequently and evidently enervated and overcome. Brandy has also the same effect in a less degree, and should be very sparingly exhibited. Enemata of hot water, salted, or with *Oleum Terebinthinæ*, a little chloride of lime, or with some spirits, or one entirely of hot beef tea, have been used with more or less relief. I would inject much and leave the patient to drink warm water *ad libitum*, to distend, warm, and promote circulation in the portal system, which is allowed on all hands, to be in a much congested state, besides the mere dilution of the morbid secretions of the bowels seem to do good. I am doubtful of the application of great external heat being of much avail, beyond an occasional sinapism to the epigastrium, hot bran poultices along the spine, or frictions with hot and stimulating oils, as oil of camphor, oil of succinum, oil of turpentine. I fear too much heat exhausts the small remainder of vitality in the skin and whole frame, and excites the heart to undue action on its enervated and carbonized blood. The capillary system is no longer, or at the time, under the call of such a stimulus. The vitality must be first diffused, and if the heat applied be too great, it is exhausted instead of being diffused.

Mode of Propagation.—Naturally inclined, from analogy, to the doctrine of non-contagion, I have, notwithstanding, considerably weighed my own observations, as well as those of others, and I can still see no proof of contagion strictly speaking, nor that the disease in any way follows the laws

of the acknowledged contagions, as plague, small-pox, &c. Its appearance at Bolton could not be traced to importation. The first two fatal cases occurred in the detached vale at Mill Hill, along the course of a sluggish stream and mill-race. The foci or infected localities in the town were principally confined to some courts and entries, lying on the north side of Deansgate, and on the rising brow of a dirty and muddy river, whence a noxious effluvium may probably have arisen. The victims of the disease in these places were lodged in damp and thickly-confined houses, and were more or less intemperate. This peculiarity of infection along the course of the river, even through the town, was very remarkable, and accords with the general remarks of the vicinity of streams and water-courses, being more infected with the disease than other situations. The moral contagion of fear seemed, here and elsewhere, to have had a most obvious agency among the many alleged modes of propagation; and it appears, that where this depressing passion was most prevalent, the disease put on most of its reputed contagious character. In the view of its merely epidemic nature, the effects of fear,—more easily and powerfully excited from the aspect of this disease than from that of most others,—were enervated and paralysed action of the heart, remora of circulation, and consequently congestion in the large vessels, and collapse in the capillaries, would take place, and constitute the very initiatory stage of cholera. We know that several diseases of a formidable character have been propagated by moral sympathy, such as different kinds of convulsions, as epilepsy and chorea, and why not the convulsive one of cholera, as far as the spasmodic symptoms are concerned?

Autopsia.—From all I have read, heard, and in any limited inspections, observed, there seems to be no morbid lesion which constitutes the prominent auto-crasy of the disease; neither can any one say, before inspection, where the most obvious changes in the internal organs and tissues will be found. The pre-existence of the malady may, however, be fairly inferred from the state of the skin, blood, contents of the stomach and intestines, the contracted state of the bladder, and the distended gall-vesicle; even if the symptoms during life had not been communicated to, or been seen by, the autopsist.

One reason why the disease visited Bolton so slightly this year seemed to be, that the constitution of the inhabitants was little prepared for, or rather fortified against, its reception, the health of the place being remarkably good—never more so since I have witnessed it for these twelve years or past—and especially from its being free from intestinal complaints. Whereas, if the cholera had visited us in 1831, I believe the disease would have committed ravages equal to those of any place in the kingdom; for common cholera and dysentery then prevailed to an extent beyond what I have ever seen to do among civilians. For an account of this epidemic, I may refer to the article on the subject in the forty-fifth volume of the *Edinburgh Medical and Surgical Journal*. While this intestinal epidemic was going through its phases with us, the malignant cholera showed itself on our eastern shores at Sunderland;

but before either the morbid current, aerial or terrestrial, or any of the pestiferous communication had reached us, we had thrown off our enfeebling shackles, and had recovered renewed strength, and gained a comparative immunity.

During all last year I observed that bleeding was much seldomer required than usual in several diseases; the general constitution was *asthenical*. During this summer and autumn it remained in a healthy equipoise, and the mental barometer kept high and elastic from political excitement and a plentiful harvest. On the commencement of this winter, however, the lancet has been much more in requisition, and patients bear bleeding well; thoracic congestions and rheumatism have prevailed, with many cases of irregular phlogosis and plenitude; while all debilitating or asthenic diseases, as diarrhœa, dysentery, and typhus, have been rare, with the few exceptions of malignant cholera.

It is now the great question, whether the cholera, having afflicted the kingdom for a year, and having now almost disappeared, it will return, or break out again in the next succeeding years, in any epidemic form, or whether the morbid current having passed over us, it will expend itself on the eastern and western coasts of America, and then return to its native Ganges, whence it has rushed over the greater part of the world? If we may hazard a conjecture, and which is consonant with my notions of its transmissible and pathogenic nature, it will appear next summer, if it be hot, in some minor shape, sporadically, and without any character of contagion. It will likewise take one or more years before the constitution loses its predisposition to it, and resumes its former strength and immunity. 20th Dec. 1832. •

OBSERVATIONS ON THE DISEASE IN 1833.

In fulfilment of the fears and predictions of many medical prophets, the pestilential cholera has again made its appearance in many towns and villages of the kingdom, though in a more limited or sporadic manner. The deaths to the number attacked, were, however, proportionably greater than during last year, and the disease affected, not exclusively, the poor, desolate and intemperate. Many persons in good circumstances have been suddenly seized and carried off in the space of from six to twelve hours. Nothing new in the pathology or treatment has been brought forward, and notwithstanding the thousand nostrums and the rational empiricism of many remedies, medical men seem as much at sea as ever, as to any systematic and successful treatment. I have not heard of children being anywise affected with the disease this autumn, and those who have been the principle victims, have previously laboured under a weak state of the digestive organs, merging into slight disturbance, or diarrhœa, previous to the explosion of the disease; and this, whether arising from intemperance, or constitutional debility. All accounts describe the cases to have been unusually malignant and speedy in their fatal progress, and the consecutive fever has been little spoken of this season. The deaths in London from the disease never exceeded 260 a week. In Bolton there were in all about twenty deaths. Of these, I

have detailed at length four very interesting cases, as having proved fatal to people in good circumstances, and three of them residing in a very dry and healthy situation; but I consider it quite superfluous to transcribe their cases in this place. Two of the principal circumstances recorded, are the great and increased warmth of the body after death, and the relief derived in one case, when there was no pulse at the wrist, from venesection to twelve ounces. I have also recorded the recovery of a fully formed asphyxiated case, in a stout young man, from bleeding, non-purgative salines and external warmth, but without the least particle of brandy or spirits, to which the patient had a great reluctance.

Remarks.—From what I have additionally seen this season, I consider the disease one of the most hopeless and mysterious I have ever witnessed. I can no otherwise account for the dreadful intensity of the phenomena, than by a sudden enervation, similar to the recorded effects of the opus poison on the heart, arteries, and blood. It is in the muscular or the organic life of the circulating system that the explosive phenomena take place, however much any disorders or discharges of gastric and cœliac organs may prepare the way. No extent of simple vomiting and purging could lead to such sudden annihilation of the powers of the sanguiferous system, in the absence of some superadded azootic poison or impression. Sea-sickness often produces far more retching and vomiting, and diarrhœa and dysentery are often attended with more debilitating evacuations, and in some asphyxiated cases of cholera, there is little purging or vomiting at all. These evacuations seem more the consecutive or concomitant effects of the one atonic cause, which exhibits itself in its essential and primary force on the blood and the apparatus of circulation. To me neither an excess of carbon, nor its acid, nor a deficiency of them, have any thing to do with the motive onset, nothing but a direct poisonous ferment, or a deprivation of the principle of organic life, can account for the phenomena. The sensorial powers are for a long time comparatively unimpaired; so are the animal functions; spasms plainly arise from the muscular powers, and those of the nerves losing their antagonizing balance. On this view, which is corroborated by cadaveric inspection, the heart and great vessels are loaded with devalitized blood, choking up the movements of the heart which is itself enervated. Abstraction of blood, therefore, in all full-grown subjects, or where there are much fluids, is indicated, when the blood can be solicited to flow, but this is sometimes found difficult. Opium, in this view of the disease, tends still more to enervate the muscular power, by its sedative and narcotic effects; while brandy, and all alcoholic stimuli exhaust still more the remainder of the vital and muscular energy left, though they may temporarily produce a fuller exhibition of life and motion, and enliven the sensorial functions. The indications seem to be,—to husband the muscular or organic powers, to take the load and remora from the heart and great vessels, to equalize by cautious means the circulation, to gently nourish the digestive organs, whereby a renewal of the vital forces may be effected, and if this be

accomplished in the least degree, it is the commencement of a cure, however destitute of fluids, sanguineous or others, the afflicted patient may be. Experience may correct or confirm these views.

October 15, 1833.

SHORT NOTES OF THE OPINIONS AND PRACTICE OF THE LATE JOHN PEARSON, ESQ., F.R.S., ON SYPHILITIC DISEASE.*

By W. S. OKE, M.D., Physician to the Royal South Hants Infirmary.

Treatment of Indolent Bubo.—When its progress is slow, when there is but little pain, and not much hardness, and when the skin is not discoloured, it may be stimulated with blisters, gum-plaster, electricity, and dry cupping. Dry cupping, by inducing an influx of blood into the part, will sometimes excite the action of the absorbents, and so change the character of the disease from an indolent to a phlegmonous bubo. With this view dry cupping is preferable to blisters. In hospital practice a hot iron may be drawn over the surface, so as to excite a more free and vigorous circulation, by which means indolent tumours of this kind have been considerably lessened. Along with this local treatment, a generous diet and exercise will be found beneficial.

When the structure of the gland is altered, when the integuments are diseased, and when matter has begun to form, fomentations and poultices may be tried, but the latter must be applied as hot as they can be borne, or they will be of no benefit. Poultices may also do good by pressure, especially if ecchymosis be present. Stimulating plasters, composed of Burgundy pitch, with a small quantity of cantharides or euphorbium, are also (especially the latter,) very serviceable. But if the integuments are very much diseased, it will be best to destroy them by the use of the potassa fusa, after which linseed poultices are to be applied till the slough separates and is thrown off. It ought never to be removed by the knife or scissors. After its spontaneous separation, the sore may be poulticed three or four days, till it is clean, and then treated with the red ointment,—the Unguentum Hydragryri Nitrico-Oxidi.

When one or more absorbent glands appear prominent on the granulating surface, they ought to be removed, as they act as extraneous substances. The best way of doing this is to pass a piece of lint under one or more of these by means of a probe, to produce a more perfect suppuration, and in a short time it will be easy to pluck each out from its situation. The cavity should then be filled with the "Pulvis angelicus" till the parts become healthy. [This is also called algaroth, from its inventor Victor Algarotti, a physician of Verona; also Mercurius vitæ, and Mercurius mortis. It is a metallic oxide, in the form of a

white powder, and is deposited from the chloride of antimony,—butter of antimony,—when mixed with water.]

Another method of treating these glands, when very prominent, is by ligature, and after their removal, by escharotics, either by filling the cavity with a Trochiscus de Minio, [made thus :—Red oxide of lead half an ounce, bi-chloride of mercury one ounce, bread crumbs four ounces, rose water enough; the mass to be cut into oblong troches;] or by sprinkling the surface with red precipitate, as it is of great importance that the bottom of the sore should be kept clean. If the edges become callous, they must also be destroyed.

Sometimes several small glands in the vicinity suppurate, whilst the larger bubo appears inclined to heal; this may be suspected when there is a greater discharge from the ulcer than its size would account for, and by pressing on some particular part of the margins of the sore, pus will be pressed into the general cavity, and at once discover the direction of the diseased gland. Such a case will occasionally yield to poultices, but more commonly it becomes necessary to expose the sinus by rubbing caustic (the caustic alkali,) into the skin over it.

When the ulcer assumes a pale flaccid appearance, having an unequal surface, and thick jagged edges, its condition may be improved by fomentations and poultices, with warm dressings; and by bark, sarsaparilla, and wine internally. The general health will be also greatly benefitted by warm sea-bathing. The jagged edges of the sore may be removed by the knife, or by caustic, for until these are made soft, equal, and healthy, little good can be done.

When the ulcer is deep, the orifice small, and the discharge continues to be considerable, it is probable that a lymphatic has been injured; it will therefore be necessary to destroy the morbid part entirely, which may be done by pressing a piece of lunar caustic or a bit of sulphate of copper into the opening, leaving it there several minutes, and this application may be repeated, if necessary. When, however, the erosion is deep and out of sight, especially if near some important blood-vessel, such a treatment is not admissible. The potassa fusa is never to be applied to a part out of sight; indeed it ought not to be left even upon the integuments; the better way of using it will be to rub it upon the skin till it appears dead, after which a poultice may be applied. Sometimes a bubo, instead of healing after the completion of a mercurial course, will become painful and ulcerate very extensively, even to the external part of the thigh, or in a contrary direction to the scrotum and anus. The ulcer is ill conditioned, is attended with a very indifferent state of health, and often resists every mode of treatment. Sea-water poultices, solutions of white and blue vitriol, and even the actual cautery have been used locally. Bark, cicuta, the oxymuriate of