

rhage does not occur. It has never occurred in any single instance where I used the clamp and cautery for hæmorrhoids or prolapsus. But I operated on a case of polypus of the rectum, of the most vascular character I ever met with, with the clamp and cautery. The pedicle, which was very forcibly pulled down and was seated high up, was clamped and cauterized without a drop of blood showing. On the first action of the bowels in three days, a considerable amount of blood came away; it was, however, arrested as soon as I saw the patient by the injection of ice-water, and did not recur. I have been surprised that secondary hæmorrhage has not occurred in any of the cases detailed, especially in those instances where the bowels have acted within two days, and where the patients would go out earlier than I wished.

In one or two instances patients have disregarded my wishes, and have travelled long distances by railway a few days after the operation, or, as in one case, taken a violent purgative before the wounds were half healed. Considerable suffering has been the result; but of course, with such neglect on the part of the patient, it is unfair to attribute the evil results to the operation itself.

With reference to the occurrence of any stricture of the bowel, or any unhealthy ulceration remaining, I have not met with it.

Caroline-street, Bedford-square, June, 1866.

## REMARKS

ON

## THE NATURE AND TREATMENT OF ASIATIC CHOLERA,

WITH SPECIAL REFERENCE TO THE ADMINISTRATION OF "SMALL PORTIONS OF ICED WATER," AND THE EMPLOYMENT OF THE VAPOUR-BATH, IN THIS DISEASE.

By DUNCAN MENZIES, M.R.C.P.,

DEPUTY INSPECTOR-GENERAL OF ARMY HOSPITALS ON HALF-PAY.

At a time when we are again anticipating the spread of cholera in this country, I am induced to offer the following remarks, based upon my extensive experience in the treatment of this disease; and would in the first place observe, that our immunity from cholera last summer, when the pestilence reached our shores by the Mediterranean, compared with our neighbours the French, across the Channel, was remarkable, and it may naturally be asked how this is to be explained.

I think the question may, to a certain degree, admit of solution, if we consider the influence which particular winds, with temperature, possess in conveying the infection from one place to another. My own idea is, that the pestilence which reached us last year, and which was chiefly confined to Southampton and Epping, received a check from the easterly winds in the English Channel, and that the westerly gales which set in towards the latter end of October, after the extremely hot and sultry weather we had in September and part of October, with the reduction of temperature which immediately followed, had a most salutary effect in neutralising much of the virulence of the disease, and of which we had a marked proof by the speedy subsidence of cholera at different places along the Atlantic seaboard which had been exposed to the influence of those winds.

Should this view be tenable, may it not be turned to good account by establishing for the future a more effectual system of quarantine for the protection of this country against the importation of the disease? remembering that the course of the pestilence on three previous occasions has been from India to Europe in a south-westerly direction, through Russia, and by the Baltic, across the German ocean, to our eastern ports. And I should not be surprised to find that the present outbreak among the emigrants who arrived from Rotterdam, in England, may be traced to the same source.

With respect to the spontaneous development of cholera, I have no faith whatever in such a theory, believing as I do that the outbreak at Mecca was entirely owing to the seeds of the disease having been brought in the first instance to that place by the pilgrims from India; and when we take into consideration the circumstance of the assemblage of so large a number of people together, and their being reduced, as Dr.

Tilbury Fox observes, "to the lowest ebb of vitality by hunger, filth, and disease," we need not wonder that cholera should have made its appearance amongst such a class of persons, and to so fatal a degree. Dr. Watson, one of our leading physicians, observes, in his excellent Lectures on the Principles and Practice of Physic, that "however unwholesome and pernicious the atmosphere may be, it cannot generate cholera, unless the specific exciting poison of that disorder is present;" although he grants that the foul air lends force and diffusion to the poison.

Besides the usual predisposing causes of cholera—such as high temperature, eating unwholesome articles of food, fruits, &c.,—the disease is generally found to be confined in its course on land to low situations, an alluvial soil by the banks of rivers, and seldom to extend to places of high altitude, where the air is more rarefied and oxygenated.

The opinion which I have formed of Asiatic cholera, after much experience in the public service in various parts of the world, is, that it is a disease *sui generis*, propagated by atmospheric causes, and affecting individuals having a predisposition for taking the specific poison into their organism, and which, I think, may in some degree be allied to other epidemics.

I have generally observed when in the tropics during seasons of sickness, and particularly when cholera prevailed, that thunderstorms were less frequent than usual; and that in consequence the atmosphere was more oppressive to the feelings, and the course of the circulation of the blood retarded, so as seriously to impede the functions of the heart and lungs.

Reasoning, therefore, physiologically, it would seem to me that the cholera-poison operates in the first place on the animal economy through the pneumogastric or ganglionic and reflex system of nerves, causing suspension of the contractile power of the capillary vessels; and the blood becoming surcharged with carbon, and wanting its serous portion, which has been drained off by purging, the necessary stimulus to the heart and brain is suspended. Hence the train of symptoms which characterize the collapsed stage.

That this is the condition in which the vital organs are found in the more malignant forms of the disease, may, I think, be inferred from the general pathological appearances noticed after death.

That Asiatic cholera is essentially a disease of hot countries, endemic to India, and developed by the conditions of atmosphere described, I think there can be little doubt; as we find on the occurrence of sudden changes of weather, and more especially if this should be accompanied by thunder and lightning, with heavy rain and a reduction of temperature, that a considerable amelioration takes place in the symptoms of those undergoing treatment, as well as in the exemption from further attacks of the disease. Much may also depend upon the quarter whence the wind blows, having generally observed cholera to be more prevalent when the wind came from the east than from the west or south. This circumstance I particularly noted on the advent of the disease at Shorncliffe in the summer of 1855, which was then imported by the recruits for the German Legion, on their arrival at that station from Hamburg, where the disorder had been very prevalent.

Although I do not look upon cholera as contagious, still I cannot but feel that this point may be considered as *sub judice*, since it must be observed that the specific poison, whatever it may be, is frequently conveyed by individuals arriving, as I have said, from infected places, and that the attendants upon those labouring under the disease are often subjects of attack. Hence the necessity of strictly enforcing quarantine at all the seaports where vessels are likely to put in from infected places. I would at the same time recommend the perfect isolation of those who are attacked with the disease, and that a *cordon sanitaire* should likewise be established.

In the army I have seen the good effects of immediately removing the troops from the infected locality, as well as by paying attention to other sanitary measures during the prevalence of the pestilence.

Amongst the prophylactics I would particularly mention the removal of all unhealthy exhalations; enforce attention to cleanliness and the proper ventilation of dwellings, and special care taken that the emanations from infected persons should not in any way come in contact with the water drunk or used by other parties. For this purpose various disinfectants should be employed to neutralize the noxious gases which arise from cesspools, open drains, &c. Particular care should also be taken that the water used for drinking and cooking is of a wholesome quality, and excesses of all kinds that would tend to depress the spirits or weaken the body should also be carefully avoided.

I now come to speak of the treatment of this disease. Having looked upon some of the symptoms of cholera as partaking much of the character of the action upon the system of an acrid mineral poison, such as might be produced by a large dose of tartarized antimony, and taking this view of the case, I found, after other remedies had failed to put a stop to the vomiting and sense of burning at the precordia, that much benefit followed the administration of the decoction of cinchona, the antidote given in such cases of poisoning by this mineral in order to neutralize its effects, but prescribed it on this occasion with a different object of course as to its *modus operandi*; and conceiving that the internal coats of the stomach might be in an irritable condition, as would be the case had antimony been present, I combined the bark decoction with about an equal proportion of almond emulsion, thinking this might have a tranquillizing effect from its demulcent operation: whilst the bark would impart tone to the organ, and probably also act as an astringent.

In order the better to show the successful effects of this treatment in combination with other remedies, I will here shortly detail, as far as my recollection will enable me to do, the first case of malignant cholera that came under my care when employed to watch the progress of this disease on the continent in 1831 and 1832.

The case I speak of was the wife of a fisherman, residing at Heligoland, one of our islands situated at the mouth of the Elbe. This woman had evidently the infection conveyed to her by her husband the same evening he returned home from Hamburg, where he had gone to purchase canvas, and where cholera had for some time previously been very prevalent and fatal. It appeared that this man had suffered from slight sickness and looseness of the bowels whilst on the passage across in an open boat, and that by the time he got to the island he had quite recovered. On being sent for to see his wife the following morning, I found her far gone in the collapsed stage; she was pulseless, and apparently beyond all hopes of recovery. She had frequent distressing vomiting, with purging of fluid like rice-water, burning pain at the epigastrium, urgent thirst, severe cramps in all her limbs, the surface of the body being cold and covered with clammy sweat; she had lost her voice, was very restless, and frequently tossed her arms about, and gasped like a person sinking from loss of blood. The urinary secretion was totally suppressed, although her mental faculties remained unimpaired.

The usual remedies having been employed without benefit, I directed a tablespoonful of the bark mixture, prepared as already described, to be given to my patient at regular intervals of time, and carefully watched its action. After she had taken a few doses of the mixture, I was pleased to find that not only had the sickness at the stomach gone off, but that the other symptoms had also greatly subsided. Finding that she could now retain what she swallowed, I gave her a pill consisting of five grains of calomel, one grain of powdered opium, and two grains of aromatic confection, which she kept down; mustard sinapisms were at the same time applied to the epigastrium, hot-water bottles to the extremities and armpits, with frictions by stimulating embrocations to the cramped parts; whilst diffusible stimulants were afterwards given. Before reaction was fairly established, I noticed that she laboured under increased difficulty in breathing, and that she became more restless, there being still no pulse at the wrist. I directly opened a vein in the arm, but finding no blood to flow, I repeated the operation in the other arm; and having placed both extremities into a basin containing warm water, I at length succeeded in abstracting about five ounces of thick dark-looking blood. I had by this time discontinued the bark mixture, but went on with the diffusible stimuli; and shortly after this had the satisfaction to feel the pulse beating feebly at both wrists, and the heart's action was distinctly heard. I must here only further observe that from this time the case did well, all the secretions having come round under gentle mercurial laxatives; and with light nourishing food my patient speedily recovered.

Several more cases of cholera having shortly afterwards broken out upon the island, I pursued much the same plan of treatment, and with such satisfactory results as to have given me confidence in the remedies I had employed.

Taking into consideration the greater liability to cerebral affection supervening upon such attacks within the tropics, compared with what might take place in a more temperate region, I deemed it advisable, when I shortly afterwards went to India, to discontinue the bark treatment in that country, and to give "iced water, in sparing quantities," instead. My practice was to administer only a tablespoonful of the water

at a time, mixing with the first portion given an equal quantity of brandy or port wine; this was not repeated, but the water alone afterwards continued. I found this treatment to answer well, more especially when the case was seen early; and to be the most sustaining and refreshing to the sufferer, not only in relieving the sickness and burning uneasy feeling at the precordia, but also in restoring the lost tone of the stomach. I afterwards directed a pill to be given consisting of from five to ten grains of calomel, one grain of opium, and two grains of aromatic confection; and followed this up with effervescing draughts and the diffusible stimuli; using also mustard sinapisms to the epigastrium, hot bottles of water to the extremities and armpits, with frictions to the cramped parts. When reaction came on, mercurial laxatives were given, which brought the secretions round to their normal condition; and, with light nourishing food—as chicken broth, which I found the most suitable, as affording the greatest support,—recovery took place in a large proportion of those who had been attacked, and in whom the constitution had not been previously impaired by disease or habits of intemperance.

Alcoholic stimulants were not given, as I have observed, to any extent. Care was also taken to keep the sufferers in bed, and that they should use the bed-pan whilst under treatment. This precaution I considered the more necessary, as I can only compare the extreme prostration under which cholera-patients labour, during the stage of collapse in particular, to that which would take place after extensive hæmorrhage; and this in consequence of the large proportion of serum which has been removed from the blood in the evacuations. This may also satisfactorily explain the beneficial effects of small and repeated portions of iced water in restoring to the blood one of its most important constituents, which is necessary for its proper circulation in the system, in stimulating the nervous centres, and also by supplying oxygen to the carbonized blood, to a certain extent.

I am aware that iced water has been frequently employed in the treatment of cholera, but I think without sufficient consideration as to its action and effects. When given, as is frequently the practice, *ad libitum*, it is very apt to disagree and be directly afterwards rejected, from its accumulated bulk and weight occasioning a sense of oppression and sickness at the precordia; whereas, when the water is taken in the sparing proportions I have recommended, this inconvenience is avoided, and the sufferers will, on the contrary, tell you that they feel much relieved and refreshed after each draught; and this goes on until the stomach regains its normal tone, when medicines will not only be better borne, but also absorbed. I may add, that I put this treatment into practice during my stay in the upper provinces of Bengal, which extended over a period of six years, and found it very successful, whether the case was seen early or late in the disease. In some cases there was no previous ailment; in others the attacks had been preceded by diarrhæa.

As to the therapeutic action of mercury in cholera, I consider it to be that of a sedative; and that it also stimulates the gall-ducts, which are spasmodically closed in this disease, so as to cause the bile when secreted to come away with the alvine dejections. I think opium likewise serviceable, when not pushed to such an extent as to occasion cerebral affection, in the secondary fever, which attends the stage of reaction. It possesses, besides, sedative effects; and assists to allay that irritability in connexion with the pneumogastric nerve which supplies the stomach, and by this means extends its influence to the heart and lungs, as well as to the motor nerves.

Being unwilling to disturb those labouring under cholera but as little as possible, for the reasons already given, I have said nothing as to the employment of warm baths. Should a necessity, however, arise for their use, in order to determine to the surface and restore the natural warmth to the body, as well as to equalize the circulation in the stage of collapse, I should recommend a vapour bath, so constructed as to admit of being placed under the patient's bed, with only the sacking and a blanket placed between him and the vapour, which would reach the body through apertures made in the top plate of the bath. A bath of this description would not occasion the sufferer much inconvenience; it would be constructed of wrought iron, and made portable for easy conveyance to any distance at a charge not probably exceeding £5. Any further information required as to the construction and using of the bath may be obtained on applying at Robertson's hot-air bath establishment, 20, North Audley-street, Grosvenor-square.

Having thus attempted to give what I fear may be thought but an imperfect outline of what came under my observation in the treatment of Asiatic cholera, and which may be con-

sidered as somewhat "novel," I may conclude by saying, as Dr. Marshall Hall used to tell his young friends, that I am not vain enough to think that, because I have given this new idea, it may be correct. By following it up, however, the remedy is, perhaps, worthy of further trial; and by perseverance it may succeed.

Westbourne-park-road, June, 1866.

## A Mirror

### OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. BARTHOLOMEW'S HOSPITAL.

##### NECROSIS OF THE LOWER JAW FROM APPLICATION OF TOBACCO OIL TO A HOLLOW TOOTH; REMOVAL OF DEAD BONE.

(Under the care of Mr. PAGET.)

SMOKING has long been a popular remedy for toothache, and we believe the sailor's quid enjoys a still greater reputation as a local application under these trying circumstances. In the case to which we now refer, the unfortunate patient, through his application of the remedy in a highly concentrated form, set up inflammatory action, which destroyed a large portion of his jaw.

An Italian sailor was placed, under the influence of chloroform, upon the operating table on the 26th ultimo. Just under his left lower jaw the skin was ulcerated, and there was a sinus communicating with dead bone. Mr. Paget removed several of the teeth, and then, without making any incision, contrived, with the aid of a strong forceps, to remove several sequestra representing a portion of the base, the angle, and a large part of the ascending ramus of the left lower maxilla.

From Mr. Paget's remarks, we gathered that the man, just previous to starting from Australia three months ago, suffered very much from a carious tooth. To relieve the pain, he introduced into the hollow some of the oil of tobacco which had accumulated in the stem of his pipe. Violent inflammation of periosteum and the surface of bone was set up, ending in death of the osseous tissue. Mr. Paget remarked, incidentally, that there was great uncertainty as to the period at which sequestra were removable. As a general rule, the more acute the necrosis the more rapid the separation of the fragment; so that within three months of acute necrosis one might expect to find the sequestrum loose, as was the case in the present instance.

The case well illustrates a source of danger which is not generally recognised. The practice of smoking is very widely spread, and foul pipes, as well as carious teeth, are very common. Every smoker of a pipe has been disgusted now and then by sucking into his mouth a few drops of the highly pungent and nauseous product of the combustion of tobacco. In the action of smoking, the tip of the tongue ordinarily receives this deleterious fluid, and is very often blistered in consequence. Were it not for the tongue, one can readily imagine that hollow teeth would often receive this fluid; with what amount of risk the case before us well shows. It is well known that for phosphorus to excite the inflammatory action which so often affects the lucifer-match workers the fumes must be applied to a raw vascular surface in immediate connexion with the nutrition of bone. This almost always happens through the medium of a carious tooth. There is no reason to suppose that tobacco oil would set up inflammation except under similar circumstances. It is, however, very probable that some cases of acute necrosis of the lower jaw, of obscure origin, may have really originated from the accidental poisoning of tooth-pulp by this liquid; and the possibility of this source of disease should be borne in mind.

#### MIDDLESEX HOSPITAL.

##### A CASE OF SINUS ON THE HIP, ORIGINATING IN A RENAL ABSCESS, WHICH ULTIMATELY BURST INTO THE PERITONEAL CAVITY, AND KILLED BY EXCITING PERITONITIS AND PYÆMIA.

(Under the care of Mr. HULKE.)

THE difficulty of diagnosis, the mode of termination, and the restriction of the embolism to the left branch of the pulmonary artery, form points of great interest in the following case.

A stout, healthy-looking maidservant, aged twenty, was admitted into Regent ward, Aug. 1st, in order that an obstinate sinus on her hip might be more thoroughly explored than was practicable while she was an out-patient. Its orifice was just over the posterior superior iliac spine, and the sinus was traceable with a probe parallel to the iliac crest nearly as far as the anterior superior spine. She complained of pain in the lower part of the belly. She micturated frequently. Her urine scalded her; it contained a little mucus and a trace of pus, but no structural elements referable distinctly to kidney tissues were discoverable in it. She related that two years previously, soon after lifting a heavy weight, she had severe pain in her right flank, which kept her in bed a fortnight; and that after this she voided (per urethram) two stones of the size of horse-beans. Fifteen months afterwards, an abscess broke on her hip, in the situation of the present sinus; and though it had several times closed, it always opened again in a few days.

There were not any indications of disease of the hip, or sacro-iliac joints, or vertebrae; and as her apparently good health negated the suspicion, excited by the history of renal calculi, that the abscess might possibly have a renal origin, and the sinus was not traceable in the direction of the kidney, it was expected that a persistent local source of irritation would be found by laying open the sinus. The chronic cystitis seemed to point to stone, but none was found on sounding the bladder.

On January 24th the sinus was opened up, and a counter-opening made near the anterior iliac spine, without finding any local cause in connexion with the ilium; but another branch was discovered which ran upwards and forwards through the quadratus lumborum muscle in the direction of the kidney.

On the third day she had a rigor, followed by acute peritonitis and pyæmia, which ended fatally Feb. 6th.

At the post-mortem examination about twenty ounces of puriform serum were found in the peritoneal cavity, and the serous surfaces were coated with soft yellow lymph, which was very thick on the liver. Between the liver and diaphragm, shut off by soft adhesions, were some ounces of fluid similar to that in the general peritoneal sac. The liver and right kidney were bound together by tough fibrous adhesions of old date. The kidney was overlaid and fixed to all the adjacent parts by thick fibrous tissue. On its front, near the upper end, a small orifice with shreddy edges opened from the pelvis into the peritoneal cavity. On laying the kidney open it was found changed into an irregularly sacculated pouch, containing some puriform fluid, and two small fragments of phosphatic calculi, behind which a sinus led through the back of the kidney and quadratus lumborum to the external opening in the hip. Scarcely a trace of normal kidney-tissue remained. The ureter was narrowed, and the tissues around it thickened. The left kidney was nearly twice the normal size; its structure was normal. The mucous membrane of the base of the bladder was congested, especially around the opening of the right ureter, and somewhat roughened. The left pleural cavity was filled with puriform fluid, and the serous surfaces coated with soft lymph. The lung was completely collapsed; it contained numerous abscesses, the largest of the size of a hazel-nut; the smallest were found, on careful examination, to lie in the finer branches of the pulmonary artery, many of which were plugged with purulent fluid. The larger arterial branches contained loose black clots. The right lung was everywhere firmly adherent; its structure was normal. Some small purulent deposits were found in the anterior mediastinum upon the outer surface of the pericardium. The inner surface of this latter and the heart were normal.