

XI. *An Account of the Plague at Constantinople: In a Letter from Mordach Mackenzie, M. D. to Sir James Porter, His Majesty's Envoy Plenipotentiary at Bruffels, and F. R. S.*

S I R,

Read Feb. 23, 1764. **S**O many great men have written upon the Plague already, as Prosper Alpinus, Sydenham, Hodges, Diemerbroeck, Muratori, Mead, &c. that it might be justly thought presumptuous in me to touch upon that subject after them. But as I find, that they differ in some circumstances, and that some of them have had an opportunity of seeing only one year's plague; I may be allowed to write to you such remarks, as I have made for almost thirty years, that I have lived in this plaguy country, without any quotations or confirmations from other authors; which I hope will help to reconcile the different opinions of the above-mentioned famous authors. Which task I would choose rather, than to contradict them; for I am persuaded, that each of them wrote according to the best of his knowledge (as I do myself) without any intention of imposing in the least upon mankind.

It is beyond dispute, that the plague appears in a different manner in different countries; and that it appears differently in the same country in different years: for we find most other diseases alter more or less.

less, according to the constitution and disposition of the air in the same climate: for, some years, fevers are epidemic, and very mortal: other years, they are epidemic, but not mortal; the small pox the same; &c. And so the plague is some years more violent, and has some symptoms different from what it has in other years; which, I take for granted, must be the reason of any difference, that may appear in the remarks of the celebrated authors already mentioned. There is one extraordinary symptom, which the most of these authors mention, tho' none of them prove it, or pretend to have seen it; which seems to me inconsistent and incompatible with the animal œconomy; making still proper allowance for Omnipotence and Divine Vengeance, as in that of Sennacherib's numerous army, and many other such plagues, mentioned in Scripture. What I mean, is, that a person cannot die of the plague (such as it appears among us) instantaneously, or in a few hours, or even the same day, that he receives the infection. For, you know, Sir, by your long experience in this country, that all such, as have the plague, conceal it as long as they can, and walk about as long as possible. And I presume it must be the same in all countries, for the same reason, which is the fear of being abandoned and left alone; and so, when they struggle for many days against it, and at last tumble down in the street, and die suddenly, people imagine, that they were then only infected, and that they died instantly of the infection; tho' it may be supposed, according to the rules of the animal œconomy, that the noxious effluvia must have been for some time mixed with the blood, before they could produce a fever, and afterwards that corruption
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and putrefaction in the blood and other fluids, as at last stops their circulation, and the patients die. This was the case of the Greek, who spoke with your master of horse, Knightkin, at the window, anno 1752, and went and died in an hour afterwards in the vineyards of Buiuk deré; and it was said he died suddenly, tho' it was very well known to many, that he had the plague upon him for many days before this accident happened.

Mrs. Chapouis found herself indisposed for many days, anno 1758, and complained pretty much, before she was suspected to have the plague. Captain Hills' sailor was infected in Candia 1736; was a fortnight in his passage to Smyrna, as the captain swore to me; yet he was five days in the hospital there before he died. Mr. Lisle's gardiner was indisposed twelve days before he took to his bed, and he lay in bed eight days before he died, in July 1745.

It is true, that Thucydides, in his account of the plague at Athens, relates, that some were said to die suddenly of it; which may have led others into the same way of thinking: but Thucydides (with all due regard to him) must be allowed to have known very little of the animal œconomy, for he was no physician, tho' a very famous historian; and he owns moreover, that, when the plague first attacked the Piræum, they were so much strangers to it at Athens, that they imagined the Lacedæmonians, who then besieged them, had poisoned their wells, and that such was the cause of their death. Besides, he pretends to affirm, from the little experience he had of the plague, that the same person cannot have it twice,
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which is absolutely false. The Greek Padré, who took care of the Greek-hospital at Smyrna for fifty years, assured me, that he had had the plague twelve different times in that interval; and it is very certain, that he died of it in 1736. Monsieur Brossard had it in the year 1745, when he returned from France; and it is very well known, that he and all his family died of it in April 1762. The Abbé, who takes care of the Frank-hospital at Pera, swore to me the other day, that he has had it already, here and at Smyrna, four different times. But, what is still more extraordinary, is, that a young woman, who had it in September last, with it's most pathognomonic symptoms, as buboes and carbuncles, after a fever, had it again on the 11th of April, and died of it some days ago, while there is not the least surmise of any accident in or about Constantinople since December, this only one excepted: but there died four persons in the same little house in September; and as the house was never well cleaned, and this young woman always lived in it, she was at last attacked a second time, and died.

The only antecedents, that I could observe to this malady, was a great murrain among the black cattle in May 1745, and in the beginning of June, the same year, swarms of butterflies flew about, and there were great numbers of caterpillars creeping every where, and afterwards a violent plague: and, after observing the same anno 1752 and 1758, you may recollect, that I foretold to you, Sir, that we should have a hot plague in those years; which accordingly happened, especially in the months of August and September 1758, when many of Marsellini's family,
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Spathari, Skwackhim's cook, Charlacci Rimbeault, Jackino's son, &c. died of it.

The plague is now more frequent in the Levant, than it was, when I came first into this country, about 30 years ago; for then, they were almost strangers to it in Aleppo and in Tripoli of Syria, and they had it but seldom at Smyrna; whereas now they have it frequently at Aleppo, and summer and winter in Smyrna, tho' never so violently in the winter; which must be owing to the great communication by commerce over all the Levant, and more extended into the country villages than it used to be. I take the plague to be an infection communicated by contact from one body to another; that is, to a sound body from an infected one, whose poisonous effluvia, subtile miasmata, and volatile steams, enter the cutaneous pores of sound persons within their reach, or mix with the air, which they draw in respiration, and so advancing by the vasa inhalantia, mix with the blood and animal fluids, in which, by their noxious and active qualities, they increase their motion and velocity, and in some days produce a fever; so that the nearer and the more frequent the contact is, the greater is the danger, as the noxious particles, exhaling from the infected person, must be more numerous, and consequently have greater force and activity in proportion to their distance.

Some persons are of opinion, that the air must be infected, and that it is the principal cause of these plagues; whereas I presume, that the ambient air is not otherwise concerned, than as the vehicle, which conveys the venemous particles from one body into another, at least in such plagues, as I have seen hitherto

at Smyrna and Constantinople; allowing always, that the different constitution of the air contributes very much to propagate the plague: for the hot air dilates and renders more volatile and active the venomous steams, whereas cold air contracts and mortifies them. The person having the plague may be said to have a contagious and poisonous air in his room and about him, while at the same time the open air is free from any dangerous exhalations; so that I never was afraid to go into any large house, wherein a plaguy person lived, provided that he was confined to one room.

The pestilential fever shews itself first, by a chilliness and shiverings even in the months of July and August, so very like the first approaches of an ague, that it is impossible to distinguish the one from the other at first sight. This cold fit is soon accompanied with a loathing nausea and desire of vomiting, which obliges the patient at last to discharge a vast quantity of bilious matter, with great uneasiness and oppression in the thorax and mouth of the stomach, attended sometimes with a dry cough, as in an intermitting fever; and even in this stage it is very difficult to distinguish the one from the other. Next, the patient has a violent head-ach and giddiness, with some slight convulsive motions: he breathes hard; his breath and sweat stink; his eyes are ruddy, he looks frightened, sad, and pale; he has an insatiable thirst; his tongue is yellowish, with a red border; he has a total loss of appetite, restlessness, great inward heat, and more than could be expected from the fever, which is sometimes pretty moderate, but grows stronger frequently towards night: the patient very often bleeds

at the nose. He continues in that dismal condition for some days, untill the venemous matter begins to be separated in some measure from the blood, and discharge itself critically upon the surface by the cutaneous eruptions of buboes, carbuncles, blains, petechial spots, and some small vesicles or blisters: but all these symptoms are not to be looked for in the same person. When the cutaneous eruptions appear and grow sensibly, the patient finds himself better, and somewhat relieved from the great oppression he laboured under before. Some persons in the above state have a very violent fever, sometimes attended with a delirium and phrenzy; others are stupid, sleepy, and complain of nothing: as one of Captain Hill's men mentioned before; and the young fellow, who died of the plague last year, which he had in our palace; for I no sooner found, that he had a fever, and was at the same time so very stupid and senseless, but I concluded he had the plague, tho' it was strenuously maintained by the servants, that he had not been out of the kitchen for a month; but, upon strict examination, it was found, that he had many plaguy symptoms, as buboes, carbuncles, &c. upon his body, and that he had been in an infected house near the palace, about 12 days before; wherein no doubt he received the infection. Such as are furious and delirious, seldom live so long, as they who are sleepy and stupid; but if they live long enough to have the cutaneous eruptions push plentifully, and their phrenzy begins to abate afterwards, they may recover more probably than such as are sleepy and have a moderate fever; tho' I have known some of them likewise die; as Delaria, the French druggerman,

who went on horse-back on Friday to Giamderé, looking upon himself past danger, but died next Saturday morning. Marfellini's eldest son, 1758, thought himself so very well after the eruptions of the buboes, that he went from town, and dined at Therapea, and returned to town the same evening and died, after he had been delirious for some days before, and had had the plaguy fever from the time he left Buiukderé about ten days before.

I make no doubt, Sir, but you are very sensible, that nothing in this country, either air or diet, produces the plague, tho' both contribute very much to it's progress and violence, after it is brought here or to any part of this country from any other infected place; for you know, by long experience, that it rages most in the hot months of July, August, and September, when the diet of most of the poor inhabitants (who are the greatest sufferers by the plague) consists of unripe fruits, cucumbers, melons, gourds, grapes, &c.

The plague breaks out here and at Smyrna some years, when it is not possible to trace whence it is conveyed; for some houses, which were infected, and not well cleaned after the infected person is removed, lodge some of the venemous *moleculæ* in wool, cotton, hair, leather or skins, &c. all winter long; which, put in motion by the heat in April or May, breathe out of their *nidus*, where they resided, and recover so much life and action, as to enter into the cutaneous pores of any person, who comes within their reach, and so infect him; as it happened at the French palace, at Mr. Hubsch's and at Caraja's house, for two or three years running. But plagues of this kind
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feldom spread, and are never so fatal, as such as come from abroad.

Many are of opinion, that the heat kills the plague, as they term it, which is owing to a foolish superstition among the Greeks, who pretend, that it must cease the 24th of June, being St. John's day, tho' they may observe the contrary happen every year; and the strongest plague, that was at Smyrna in my time, anno 1736, was hottest about that time, and continued with great violence till the latter end of September, when it began to abate; but was not entirely over till the 12th of November, when Te Deum was sung in the Capuchins convent.

This mistaken notion may be in some measure owing to a wrong sense put upon Prosper Alpinus, who allows that the plague at Cairo begins to cease in the months of June and July, when the strong Northerly winds (called Embats or Etesian winds) begin to blow, which make the country much cooler than in the months of May, April, and March, when the plague rages most; which he very justly imputes to the great suffocating heats and Southerly winds, which reign during those months in that country: and it is then, that the ships, which load rice, flax, and other goods and merchandise for Constantinople receive the infection, and carry it with them hither; and, upon these goods being delivered to persons in different parts of the city, the plague breaks out at once with great violence among the trading people of the Greeks, Armenians, and Jews; for I have observed, both here and at Smyrna, that the Turks are commonly the last of the four nations, who are infected; but when the plague gets once among them, they suffer

fer most by it, because they take the least care and precaution, and their families are much more numerous.

The plague, as well as all other epidemical diseases, has it's rise, progress, state, and declension, when it begins to lose it's virulence, and many of the sick recover. Some years it is felt sporadically all the winter; and we hear some accidents in the Phanar, among the Greeks, among the Jews, Turks, and Armenians; and even among the Franks; for you may remember, that Pera was not clean all the winter 1762. Some years it lodges in the villages upon the Bosphorus; but during the winter it is never of any great consequence.

As to the cure of this disease, some are for bleeding plentifully, as Leonardus Botallus and Doctor Dover, &c. But in this country, it is reckoned infallible death to open a vein, and therefore bleeding is never used: But I am of opinion that a medium between these two extremes might prove more to the purpose; for, as it is an inflammatory disease, bleeding and emetics might be of use in the beginning, as soon as the patient is taken with the fever, especially if the fever is very hot and attended with a delirium or any violent head-ach; but after there begins a separation of the morbid matter, which the strength of nature, and the agitation of the fever, drive upon the surface of the body in buboes or carbuncles, bleeding or purging must prove very prejudicial; but gentle vomits might be of service even then, as they might drive out those cutaneous eruptions more powerfully than nature could do it without any help. The vomits likewise might prevent the return of the morbid

morbific matter into the blood, which frequently happens, and the buboes, &c. disappear, and the patient infallibly dies in a very short time. As the pestilential fever has many remissions, I am of opinion, that the use of the bark in the remissions might be of great service; as it proved anno 1752, when the French ambassador's servant was saved at Buiukderé, by means of some bark and ipecacuana, which I sent with directions to Padré Joseppé; and he was the only person, that recovered of all the gang, who were then taken ill in our village.

The practice in the hospital is after this manner: when any person is suspected, they give him a large dose of brandy with a dram of Venice treacle; and afterwards they cover him very well that he may sweat: for the first three days, he eats nothing but vermicelli boil'd in water, with a little lemon juice. On the fourth day they give him rice and water; which diet they observe strictly till the 15th or 20th day, when they begin to allow him very thin chicken broth, commonly called brodo longo, and they give him from first to last nothing but warm water to drink.

They apply first to the buboes and parotides a cataplasm of mallows and hog's lard, to advance maturation; and, after they are ripe and open, they dress them with basilicon ointment.

They apply caimack and sugar to the carbuncles for some days to cool them; and when they begin to separate, they apply a digestive of Chio turpentine with the yolk of an egg. They apply nothing to the blains and petechial spots, which appear and disappear again upon any part of the body every three or four days.

All this time they give the sick no medicines, besides Venice treacle for the poor, and some doses of bezoar for such as can afford to pay for it; and they never can be persuaded to change their method; for when you gave them Doctor James's powder, they never tried what effect it might have.

I am of opinion that all antiphlogistics should be used before the eruptions; and all alexipharmics and antiseptics after them; more particularly camphire, and some doses of bark always in the remissions of the fever, and blisters ought to be of great use in the sleepy and stupid plague, for rousing the animal spirits, and for giving them some motion: but they are never used here; and, as they live by custom, it is impossible to prevail upon them to change it.

As to preservatives, I think the best is to remove from the infected persons and houses, and to keep at a proper distance for many days from them.

Some are of opinion, that fire preserves from the plague, and purges the air; from whom I beg leave to differ; for I have remarked here, that cooks and cooks mates, who are always near the fire, suffer more by the plague, than any other set of people in proportion to their number. Besides, the fire enlivens and gives energy to the poisonous effluvia lodged about them, which otherwise might die and disperse in the open air, if exposed sufficiently to it. Fire moreover opens the pores, relaxes the fibres; and, as the hot weather propagates the plague, fire should do the same more or less; and for the same reason I imagine, that all perfumes must be of very little service.

The next best preservative I take to be moderation, and a diet of such meats as are of easy digestion,

tion, of a rich balsamic quality, and capable of producing a rich and generous blood. It is likewise a great preservative to be under no apprehension, and to guard as much as possible against dismal thoughts and imaginations upon such occasions.

Thus, Sir, I have laid before you, in a few words, all that occurs to me upon the subject; and as most of the examples related happened in your own time, and are consistent with your memory and knowledge, I hope you can bear witness to the truth of the facts, if you think proper to present them to the Royal Society; and if not, you may dispose of them as you please, for I wrote them in obedience to your desire, and to give you an evident proof of the profound respect, with which I am,

Constantinople,
St. George's day,
1763.

Sir,

Your most obedient

humble servant,

Mordach Mackenzie.

1748. The plague began the 10th of May, and ended in November.
1749. It began the 16th of March, and ended the 20th of October.
1750. It began April 21st, and ended the 17th of September.
1751. It began the 15th of May, and continued all the summer, autumn, winter, and to the latter end of September 1752.
1753. It began May 31st, continued all the summer, autumn, winter, and till the 17th of September 1754.
1755. It began in June, but there was very little plague all this year.
1756. It began March the 6th, and ended the 12th of December.
1758. Then there was none till the 23d of April 1758, which ended in October.
1759. It began April 4th and ended about the 10th of September.
1760. It began April the 24th, and ended the 10th of November.
1761. It began the 10th of March, and continued till the 19th of December 1762. Since which day there has not been hitherto one accident, besides that of the young woman on the 11th of this month already mentioned.

In 1751, the 20th of October O. S. a vast quantity of snow fell, that cut off the distemper, and there was little plague in 1752. The former year was the most considerable, and more universally mortal at Constantinople than any in the space of fifteen years.