

The exact observation and description of symptoms mark Sydenham as one of the pioneers of modern medicine. The treatment prescribed, too, with its insistence upon "an attempered regimen" shows that the ancient superstitions, such as blood-letting, were beginning to be modified by modern common sense.

*THE WORKS OF THOMAS SYDENHAM, M. D., translated from the Latin edition of Dr. Greenhill with a life of the author by R. G. Latham, M. D. In two volumes. Printed for the Sydenham Society, London, MDCCCXLVIII (1848).*

### The Disease

1. The measles set in early as usual; i. e., at the beginning of January. They gained strength every day, until they reached their height, about the vernal equinox. After this they gradually decreased at the same rate; and by the month of July were wholly gone. As far as I have hitherto seen, I believe these measles to be the most perfect disease of their genus, for which reason I shall record their history with all the care and minuteness that the observations which I then made will warrant.

2. This disease begins and ends within the above-named period. It generally attacks infants, and, with them, runs through the whole family. It begins with shiverings and shakings, and with an inequality of heat and cold, which, during the first day, mutually succeed each other. By the second day, this has terminated in a genuine fever, accompanied with general disorder, thirst, want of appetite, white (but not dry) tongue, slight cough, heaviness of the head and eyes, and continued drowsiness. Generally there is a weeping from the eyes and nostrils, and this epiphora passes for one of the surest signs of the accession of the complaint. But to this may be added another sign equally sure, viz., the character of the eruption. Although measles usually shows itself by an exanthema upon the face, there appears upon the breast a second sort of breaking-out. This consists in broad red patches on a level with the skin, rather than true exanthemata. The patient sneezes as if from cold, his eyelids (a little before the eruption) become puffy; sometimes he vomits; oftener he has a looseness; the stools being greenish. This last symptom is commonest with infants teething, who also are more cross than usual. The symptoms increase till the fourth day. At that period (although sometimes a



THOMAS SYDENHAM

day later) little red spots, just like flea-bites, begin to come out on the forehead and the rest of the face. These increase both in size and number, group themselves in clusters, and mark the face with largish red spots of different figures. These red spots are formed by small red papulæ, thick set, and just raised above the level of the skin. The fact that they really protrude, can scarcely be determined by the eye. In can, however, be ascertained by feeling the surface with the fingers. From the face—where they first appear—these spots spread downwards to the breast and belly; afterwards to the thighs and legs. Upon all these parts, however, they appear as red marks only. There is no sensible protuberance by which they show themselves above the level of the skin.

3. In measles, the eruption has not the same effect in allaying the previous symptoms as it has in smallpox. The cough and fever still continue, so does the difficulty of breathing. The defluxion and the weakness still remain in the eyes. The continued drowsiness and want of appetite all keep on as before. The continuance, however, of the vomiting I have never yet observed. On the sixth day—there or thereabouts—the forehead and face grow rough, the cuticle being broken, and the pustules dying off. At the same time, the spots upon the rest of the body attain their greatest breadth and redness. By the eighth day the spots have disappeared from the face, and show but faintly elsewhere. On the ninth day there are no spots anywhere. In place thereof, the face,

trunk, and limbs are all covered with particles of loosened cuticle, so that they look as if they had been powdered over with flour, since the particles of broken cuticle are slightly raised, scarcely hold together, and, as the disease goes off, peel off in small particles and fall from the whole of the body in the form of scales.

4. The measles most usually disappear about the eighth day, at which time, the vulgar (deceived by their reckoning in cases of smallpox) insist that they have *struck in*. In reality, however, they have finished their course. Thus it is believed that those symptoms which come on as the measles go off, are occasioned by their being struck in too soon; for it must be noted, that just at the time in question, the fever and the difficulty in breathing increase, and the cough becomes so harassing that the patient can sleep neither night nor day. Infants, especially when they have been subjected to the hot regimen, and patients generally who have had recourse to hot remedies for the sake of promoting the eruption, are liable to these symptoms—symptoms which show themselves just as the measles give way. Hence, they may be thrown into a peripneumony, and this kills more patients than either the smallpox itself or any symptom connected therewith. Yet, provided that the measles are properly treated, they are free from danger. A diarrhoea is a frequent symptom. This may succeed the disease, and run on for weeks, after every other symptom has departed; and it is of great danger to the patient, from the loss of spirits referable to the profuseness of the evacuation. Sometimes, too, after the more intense kinds of the hot regimen, the eruption grows first livid, and afterwards black. This happens to adults only; and when it *does* happen, all is over with the patient unless, immediately upon the blackness, he be assisted by means of bloodletting and the cooling effects of a more temperate method.

### The Treatment

5. The treatment of measles, like their nature, is nearly the treatment of smallpox. Hot medicines and the hot regimen are full of danger, however much they may be used by ignorant old women, with the intention of removing the dis- (Turn to next page)

## Sydenham on Measles—*Continued*

ease as far as possible from the heart. This method, above others, has been most successful with me. The patient is kept to his bed for no more than two or three days after the measles have come out. In this way the blood may gently, and in its own way, breathe out, through the pores of the skin, those inflamed particles which are easily separable, but which offend it. He has, therefore, neither more blankets nor more fire than he would if well. All meats I forbid; but I allow oatmeal-gruel, and barley-broth, and the like; sometimes a roasted apple. His drink is either small beer, or milk boiled with three parts of water. I often ease the cough, which is constant in this disease, with a pectoral decoction, taken now and then, or with linctus, given with the same view. Above everything else, I take care to give diacodium every night throughout the disease.

Take of Pectoral decoction,  $\frac{1}{2}$  lb.

Syrup of violets,

Syrup of maidenhair, each  $1\frac{1}{2}$  fl. oz.

Mix, and make into an apozem. Take three or four ounces three or four times a day.

Take of Oil of sweet almonds, 2 fl. oz.

Syrup of violets,

Syrup of maidenhair, each 1 fl. oz.

White sugar-candy, sufficient quantity.

Mix and make into a linctus. To be taken frequently; especially when the cough is distressing.

Take of Black-cherry-water, 3 fl. oz.

Syrup of white poppy, 1 fl. oz.

Mix, and make into a draught; to be taken every night.

If the patient be an infant, the dose of the pectoral and anodyne must be lessened according to age.

6. He that uses this remedy rarely dies; nor, with the exception of the necessary and inevitable symptoms of the disease, is he afflicted with any superadded disorders. It is the cough which is the most distressing. However, it is not dangerous, unless it continue after the disease is gone. And even then, if it last a week or a fortnight, by the use of fresh air, and the proper pectoral remedies, it is got rid of with no great difficulty. Nay, it may go off of its own accord.

7. But if, however, the patient, from the use of cordials or from a hot regimen, be in a condition which is by no means unfrequent after the departure of the measles; i. e., if his life be endangered from the violence of a fever, from difficulty of breathing, or from any other symptom of a peripneumony, I take blood from the

arm, and I do it with remarkable success. The bleeding is proportionate to the age; but it can be applied even to infants. At times I have even repeated it. Under Divine Providence, I have saved many infants in this way, and I know of no other. The symptoms themselves occur with infants at the recession of the eruption; and they are so fatal, that they do more to fill Charon's boat than the smallpox itself. Further—the diarrhoea, which has been stated to follow the measles, is equally cured by bloodletting. It arises (as in pleurisies, peripneumonies and other inflammatory diseases) from the vapours of inflamed blood rushing upon the bowels, and so forcing them to the secretion. Nothing but venesection allays this. It makes a revulsion of the sharp humours, and reduces the blood to its proper temperature.

8. Let no one wonder that I recommend bleeding with tender infants. As far as I have observed, it is as safe with them as with adults. Indeed, so necessary is it in some cases that, in respect to these particular symptoms, and in respect to some others as well, infants cannot be cured without it. For instance, how could we ease the convulsions of the teething-time of infants—which take place about the ninth or tenth month, and are accompanied with pain and swelling of the gums, compression and irritation of the nerves, and paroxysms that arise therefrom—without venesection? In such cases it is better by far than all the most vaunted specifics; be they what they may. Some of these, indeed, add to heat, and do mischief; and, however much they may have the credit of arresting the disorder by means of some occult property, frequently kill the little sufferer. At present, too, I say nothing about the immense relief afforded in the *pertussis*—or the hooping-cough—of infants by venesection. Here it leaves far behind it all pectoral remedies whatsoever.

9. What has been said concerning the cure of those symptoms which occur during the going-off of measles, occasionally applies to the treatment of them at their height. It does so when they are occasioned by an ascitic and artificial heat. In 1670, I was called in to see a maid servant of the Lady Anne Barrington's, suffering under this disease, together with a fever and difficulty of breath-

ing, with purple spots discolouring the whole of her body, and with other symptoms of the most dangerous kind. I put down all this to the hot regimen, and the abundant hot medicines which she had used; and so I bled her at the arm, and ordered a cooling pectoral ptisan to be taken frequently. By the help of this, and by a more attuned regimen, the purple spots and the other bad symptoms gradually disappeared.

10. This disease, as stated above, began in the month of January, and increased every day until the vernal equinox. From that time forwards it decreased, and wholly disappeared in July. With the exception of a few places, where it showed itself in the following spring, it never returned during any of the years in which the present constitution prevailed. So much for the measles.

**Thomas Sydenham** (1624-1689) is noted for his studies of the "constitutions" or types of small pox, gout, various fevers and other common diseases. His treatment of them was directed so largely to making the patient comfortable that he was looked upon as something of a faddist by other physicians of his day. Sydenham left Oxford at 24, with a degree of Bachelor of Medicine, served in the army of Parliament for a time, and then obtained a license to practice his profession, but waited until his oldest son was attending Cambridge University to take his doctor's degree from that institution. The latter part of his life, after 40, he devoted to writing up his theories of the practice of medicine, and his observations of disease.

*Science News-Letter*, July 20, 1929

### Blueberries' Breath

*Botany*

The younger members of the human species are not alone in breathing faster when they blush. The humble blueberry also experiences more rapid respiration when the color comes to its cheeks, according to Dr. H. F. Bergman of the U. S. Department of Agriculture, who reports his investigations in *Science*.

Dr. Bergman found that the berries he was watching produced most carbon dioxide, the by-product gas of respiration, when they were deepening from pink to red. By the time they had become blue-ripe—blue in the face, so to speak—the carbon dioxide production fell off materially. The study of the breathing rate of fruits is of importance in determining their keeping qualities, and Dr. Bergman is continuing his researches on the blueberries.

*Science News-Letter*, July 20, 1929