

# 1 *Examination of the patient in the seventeenth and eighteenth centuries*

At the beginning of the seventeenth century, developments in science and technology that would create modern medicine still lay in the future – the stethoscope, bacteriology, the X-ray. The world of the seventeenth-century physician was very different. To determine the nature of illness, he relied chiefly on three techniques: the patient's statement in words which described his symptoms; the physician's observation of signs of the illness, his patient's physical appearance and behavior; and, more rarely, the physician's manual examination of the patient's body.<sup>1</sup> Seventeenth- and eighteenth-century physicians generally used the word "symptom" to mean any datum of clinical evidence that indicated some departure from good health. The term "sign" generally denoted a symptom that provided special information to the physician: for instance, to indicate that a certain phenomenon of illness had occurred, or even might occur. A change in the medical meaning of these words came about gradually during the nineteenth century; symptom was and is often used to designate a sensation of disease perceptible only to the patient, and sign, a mark of disease that the physician could observe. Not all physicians have maintained this distinction. James Mackenzie in his 1920 book, *Symptoms and Their Interpretation*, used the words symptoms and signs interchangeably to mean "a reaction of the tissues of the body to a noxious agent."<sup>2</sup> Except where specifically stated otherwise, I will follow Mackenzie and use these two terms interchangeably in this book.

The patient's narrative of the symptoms and the course of his illness, punctuated and partly directed by questions from the physician, was often the main source for the seventeenth-century physician making a diagnosis. Typical of this method is a clinical history written on July 7, 1663, by Dr. John Symcotts, an English physician with a widespread medical practice in Huntingdon and Bed-

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fordshire. His private casebooks and letters constitute one of the few existing records of the daily medical life of a seventeenth-century English doctor. One of his patients,

Mistress Christian Tenum of Cambridge, fifty years of age, could sleep so little that for fifteen years she had scarcely two and only rarely three hours sleep each night. For twenty years she had a pulsing of the arteries and when she first lay down to rest many images of things passed before her eyes. Ringing in the ears. She felt as if a heavy burden or weight was continually pressing down upon the top of her head. She had a feeling of intense heat at the back of the head. She was usually delirious once a day. Pain in the left abdomen. In colic a concentration of wind. Weakness of the back. During her menses (which had stopped five years earlier) her face had swollen, and it was followed by several stools. Three years ago she was stricken with paralysis and from this she still has a numbness of the head. A continuous cough.

Dr. Symcotts prescribed a fluid diet and medicine that caused Mistress Tenum to void stones in her urine, after which he claimed that she was cured.<sup>3</sup> (Because he gave no diagnosis, it is difficult for a modern clinician to make one from the symptoms reported.)

The narrative technique permits a subjective portrait of the illness, greatly influenced and perhaps distorted by the patient's intellect and personality. In the lines quoted, Mistress Tenum is the chief witness to and interpreter of the events of her illness. She manipulates the memories of the sensations she experienced while ill, diminishing or magnifying their severity as she chooses. Her account is not an objective description of the events but a personal statement of their meaning. The listener is being drawn into the human drama of this illness. Although Dr. Symcotts cannot verify the accuracy of most of his patient's statements, he accepts the narrative at face value. He apparently does not leave his role of listener or interrogator to become a detached observer. His casebook contains no remarks suggesting that he made any effort to examine Mistress Tenum physically.

Observation of the patient was a second, highly regarded method, which seventeenth-century physicians employed to evaluate illness; it was frequently not exploited as fully as the patient's own account.<sup>4</sup> The physician focused upon the outward appearance of the patient's body, mainly the facial expression, posture, tongue, skin color, and manner of breathing. He also examined the appearance of the blood, urine, and stools. A third method used to judge the presence of disease – and the method least used – was the physical examination of the body. At this period the physician's

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only tool was his sense of touch. He used it most often to feel the pulse and estimate its quality, without determining its exact rate. He used a sense of touch somewhat less frequently to judge the body's temperature, and occasionally to detect tenderness or abnormal masses by briskly probing the tissues beneath the skin. A clinical history of another case, also reported by Symcotts, illustrates a typical combining of the techniques of narrative, observation, and physical examination:

I called on Mistress Paradine of Bedford, a linen draper, who on the 26th of that month [June, 1637] had returned from London (but this fact the messenger concealed from me). She fell ill on the journey and when she reached home on the 27th she collapsed, felt pain all over her body, could not sleep. On the 28th she vomited much and was prostrated by a very bad headache, yet she got up for the greater part of the day. Along with the vomiting she was racked by a hiccough, together with a flux of blood from the nose which was thought to be up to ten ounces.

On the 29th her stomach was disturbed, she was afflicted by a great thirst, brought up all solid foods. The hiccough grew worse, but often stopped altogether and then began again as bad as before. That night on my advice a clyster was injected which stopped the vomiting but not the hiccough.

On the evening of the 30th, when I arrived, I found her lying down, and the hiccough, which had been stopped (by the medicine sent by the Countess of Bolingbroke) was again tearing her to pieces. She was very restless, anxious, found the bed uncomfortable, could not sleep, was delirious but not quite out of her mind, for she refused nothing that was given her and heard what we were saying.

A surgeon of the name of Rowland, a resident of that town, applied dry cupping glasses to the stomach and umbilicus and left them for some time, but they had no effect on the hiccough. Her pulse was hard, deep, swift and tumid, and I thought it a bad sign that a sweat broke out over her whole body. She was very thirsty and asked for drink; we gave it to her, but the cold drinks made the hiccough, which had stopped for some time, start again. She was still unable to sleep.

On July 1st, Mr. Woodcock of Ampthill, who had arrived long after me on the previous night, accompanied me on my visit to the patient. The urine, as on the preceding days, was turbid, highly coloured, and appeared to be slightly blackish in spots. The pulse was fast, jumpy and occasionally intermitting. Mr. Woodcock wanted to let blood; I was against it, but he was importunate and I assenting only on condition that no more than five ounces was taken, it was agreed. The blood was drawn; nobody was at fault. The pulse then became weaker and frequently intermitted; advice was given about diet, medicine and other things required for the future, and everything was entrusted to Rowland.

We left the bedside and were just about to leave for breakfast when the woman made a sign to her husband to enquire about the pain in her abdomen. Straightway he urged Rowland to see what it was and to look and see if any plague bubos were

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coming up. The latter did so and asserted most emphatically that a bubo had broken out in her groin. There was little for us to advise in this case.<sup>5</sup>

Mistress Paradine died several days later.

The Paradine case illustrates how the observational method of diagnosis, in contrast to the narrative technique, allows the physician to make judgments about the illness solely on the basis of his own sense impressions. Yet the use of the observational technique does not free the physician from consciousness of the patient as a person. The human form generally demands to be experienced with empathy, whether the bond it creates between people serves a practical end or not. We sympathize with the plight of Mistress Paradine because suffering is indicated by the external effects of the illness described by her physician–observer. The hiccough “tears her to pieces,” she is “very restless,” she looks “anxious” and “delirious.” The movements of her facial muscles and body give some sense of her inner misery.

This account of Mistress Paradine’s illness also reveals how seventeenth-century doctors typically approached physical examination of their patients. The doctors’ examinations of Mistress Paradine were limited to feeling her pulse, which was “hard, deep, swift and tumid” one day, “fast, jumpy and occasionally intermitting” the next. Neither physician made any effort to evaluate her temperature by touching the skin. Even when the bubo was called to their attention, they noted it visually but apparently made no attempt to examine it manually. The Paradine case thus demonstrates that, in the seventeenth century, the physician would attach far less weight to the evidence obtained by his sense of touch than to the patient’s narrative and to his own visual observations. The maintenance of human dignity and physical privacy placed limits on human interaction through touch, and in the seventeenth century this principle was adhered to in the relation of a physician to his patient. Only in relatively modern times have patients and physicians learned to accept physical intrusion upon the body as necessary to the diagnostic process. However, the Paradine case and the previously cited one about Mistress Tenum indicate that neither the physician nor the patient felt the same degree of inhibition in discussing the personal aspects of the patient’s illness.

During the eighteenth century, no significant change took place in the methods used to evaluate illness. Case records taken from the

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files of the Public Dispensary at Edinburgh in 1776, and published to aid medical students, show that the patient's narrative often predominated as the basis for diagnosis. One such case record is the following:

D\_\_\_\_\_ M\_\_\_\_\_, a man aged twenty-nine, by occupation a chair-man, admitted Feb. 7. complains of obtuse pain, and frequently also of coldness in the small of his back. It is, in general, attended with shivering. From the small of his back the pain sometimes extends across the lower part of the abdomen, and occasions, as he says, a temporary swelling there, during which his respiration is considerably affected. At other times the pain ascends along the course of the spine, and affects the muscles of his neck, to such a degree as to prevent him from moving his head. It affects also his jaws, face, and gums. In the last of these it occasions a transitory soreness, and has loosened some of his teeth.

His pulse is natural, his appetite is unimpaired, and his belly loose. His urine is sometimes pale and limpid, at other times of a very high colour.

Twelve weeks ago, in coming from the harvest in England, he was attacked with a pain in the abdomen, attended with vomiting and purging. To these succeeded the pains of which he has ever since complained and by which he is now rendered very weak. He imputes his complaints to fatigue in coming home. He has taken many medicines without any relief.<sup>6</sup>

Here the picture of the illness is drawn chiefly from the patient's subjective experiences, and to a lesser extent from observations made by the physician, such as the appearance of the abdomen and the color of the urine. The physician notes that pain journeys extensively about the body yet he makes no effort to probe for its source manually. Physical contact is limited to feeling the pulse.

The center of medical practice in the seventeenth and eighteenth centuries was the home, either the patient's or the physician's. Institutional care in places such as hospitals was mainly for those without financial means and family, friends, or domestics to nurse them; or for the sick who hoped, having tried all else, to find help away from home. The physician's visit to the patient, usually made on horseback or by carriage and frequently over rough terrain, was both a social and medical event. He was customarily invited to dine, and if the illness was serious he might reside for several days in the patient's home. The physician's consulting room was usually in his house, although if he lived in a large community he might establish an office in town. Occasionally, if a patient required prolonged medical supervision and lived far from the doctor, he might room and board with the doctor for days, even weeks. But to spare

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both patients and themselves the difficulty and tedium of travel, physicians often diagnosed illness and prescribed treatment through the mails. Such a practice demonstrates the doctor's general confidence in the patient's subjective account of his symptoms, as described in a letter, as well as the doctor's willingness to forego personal observation of the patient in arriving at a diagnosis. The seventeenth-century English doctor, Symcotts, had an active diagnostic correspondence with patients,<sup>7</sup> as did more famous physicians such as the eighteenth-century teacher, investigator, and widely sought consultant, the Dutchman Hermann Boerhaave. Wrote one of his patients:

Sir,

I am twenty seven years old, and for about four years last past, any violent action brings on me a difficulty of breathing, which is attended with a cough and spitting, which seldom holds me above half an hour or not so long, if I can spit freely; if I drink any strong spiritous liquor late in the evening, I am awakened frequently in the night with a shortness of breathing, but mostly after malt liquors, and likewise tobacco, any slight cold always aggravates it, and likewise cold weather; when action brings it on me, it is often attended with pain in my head, it has been easier this winter, than it was foregoing ones, and I have been less subject to take cold, which advantage I fancy to have received by taking twelve or fifteen drops of *oil of sulphur per Campan* in a glass of cold water at night. In my youth I had convulsion fits, and am more subject to this shortness of breath in the winter, than in the summer. I have my health otherwise very well, and a good appetite.<sup>8</sup>

From this letter Boerhaave diagnosed the disorder as "convulsive asthma," and sent the patient a prescription for medicine which he was to take for six weeks.

The letter of consultation was also used by John Morgan, an American physician and a chief founder of the medical school of the University of Pennsylvania. In 1765, he declared his willingness to render "an opinion in writing on the complaints of patients at a distance from Philadelphia, whenever the history of the case is properly drawn up and transmitted to me for advice."<sup>9</sup>

At the beginning of the nineteenth century, physicians continued to evaluate illness in the same manner as their predecessors had done. Here is a physician in 1805 describing a typical examination: the medical attendant first "becomes acquainted with the most prominent sensations of his patient; he feels his pulse and his skin, looks at his tongue, and examines the expression of his countenance."<sup>10</sup> A case history written in 1806 continues in similar vein. The patient,

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Alice Hurthwaite, aged 15, was admitted into the Dispensary on the 11th of June 1805, labouring under violent pain in the right side of the abdomen, about the middle of the external oblique muscle, accompanied with great thirst, increased heat, frequent shiverings, a quick pulse, nausea, and vomiting. The account which she gave of herself was, that she was seized suddenly with the pain on the 1st of June, and with difficulty walked a few hundred yards from the place where she was in service to her mother's cottage. Of her own accord she took some opening medicine that produced a good deal of purging, which still continues. She feels most easy when the abdominal muscles are relaxed, the knees being brought towards the chin. She does not recollect having received any injury on the abdomen, and has previously enjoyed good health. She is tall, and rather thin.<sup>11</sup>

In this case, although the physician gains most of his information from Alice's narrative, he comments on the shortcomings of narrative in diagnosis. Only after the patient dies does he learn that the illness was preceded by a fall from a ladder, an incident forgotten by the patient and her mother when questioned by the physician at his first visit. For him, this was "one proof, beside many others, of the great difficulty we often experience in obtaining from the poor a correct history of the predisposing causes of disease."<sup>12</sup> The doctor's visual observations concern Alice's shivering, vomiting, and body type. He feels her pulse and possibly her skin to evaluate her temperature, but despite the violent pain in her abdomen, refrains from making a physical examination.

The failure of doctors to examine the body in the presence of internal disease, and the reluctance of patients to allow it, were common in the early nineteenth century. One English physician related that he often found "plain and obvious diseases entirely mistaken and mistreated, for months, – even years, – merely from the practitioner's neglecting this simple but necessary measure!" Yet he went so far as to urge his colleagues to examine any part of the body in which disease was suspected freed from "every species of covering that can impede the necessary examination, – always by the hand, and often by the eye; and wherever the case is at all doubtful," acknowledging "the repugnance of our patients to the measure." He advised physicians to overcome the patient's repugnance "however great this may be, and however natural and proper we may feel it to be."<sup>13</sup>

A new approach to diagnosis was thus developing, stimulated by an interest in anatomical changes wrought by disease on the internal parts of the body. This anatomical perspective laid the foundation for a profound alteration in the physician's perception of dis-

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ease, and in his relationship to patients, as well as his methods of diagnosis.

At the beginning of the seventeenth century, physicians largely retained the view proposed in ancient Greek medicine that health and illness depended on the condition of substances called “humors,” fundamental components of the human body whose number was generally placed at four – blood, mucus, black bile, and yellow bile. Their harmonious mixture ensured health; a disturbance of their balance, either an excess or insufficiency of a humor, or a displacement or putrefaction of a humor, produced illness. Essentially there was one disease state, a humoral derangement or “distemper,” but as many variants of it existed as there were patients, for the symptoms of disease depended on the individual’s humoral constitution. Certain groupings of symptoms had been made by this period, and particularly conspicuous clinical conditions such as syphilis, smallpox, and plague had been named. Yet even the therapy for such acute illnesses was, as a rule, not directed at the illnesses as entities but rather at restoring harmony to the patient’s body functions: “Doctors treated fevers, fluxes, and dropsies rather than particular diseases.”<sup>14</sup>

An alternative view of illness – that different patterns of symptoms corresponded to specific disease entities – had been formulated in Greek medicine, notably by Plato.<sup>15</sup> The idea was advocated again in the sixteenth century by the Swiss-born physician Paracelsus, who traveled and practiced all over Europe. He argued that diseases were not merely manifestations of humoral imbalances, but were real entities which differed in material composition and arose from specific causes.<sup>16</sup> A disciple of Paracelsus, the Flemish doctor Jean Baptiste van Helmont, elaborated this viewpoint in the seventeenth century, as did the English physician Thomas Sydenham.

Dr. Sydenham argued that any one of a variety of circumstances could cause the humors to “become exalted into a *substantial form* or *species*,” and create disorders “coincident with their respective essences.” He believed that previous generations of physicians had been wrong in considering that the symptoms of illness principally originated “either in the nature of the part which the humour has attacked, or else in the character of the humour itself anterior to its specific metamorphosis,” and that “in their true nature” the symptoms of illness were determined by “the essence of the said spe-

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cies.”<sup>17</sup> He taught that a careful analysis of illness revealed constantly recurring patterns of symptoms, which could be used to order all illness into a finite number of distinct species, much as naturalists did in defining plant species. According to Sydenham, “Nature, in the production of disease, is uniform and consistent; so much so, that for the same disease in different persons the symptoms are for the most part the same; and the selfsame phenomena that you would observe in the sickness of a Socrates you would observe in the sickness of a simpleton.”<sup>18</sup> Sydenham based his disease descriptions on phenomena of illness revealed by the patient’s story and his own clinical observations. He was one of the first physicians to combine case histories of individual patients with a particular disorder into a disease history. Notable and representative of his efforts is his portrait of gout:

Gout attacks such old men as, after passing the best part of their life in ease and comfort, indulging freely in high living, wine, and other generous drinks, at length, from inactivity, the usual attendant of advanced life, have left off altogether the bodily exercises of their youth. . . The day before the fit the appetite is unnaturally hearty. The victim goes to bed and sleeps in good health. About two o’clock in the morning he is awakened by a severe pain in the great toe; more rarely in the heel, ankle, or instep. This pain is like that of a dislocation, and yet the parts feel as if cold water were poured over them. Then follow chills and shivers, and a little fever. The pain, which was at first moderate, becomes more intense. With its intensity the chills and shivers increase. . . The night is passed in torture, sleeplessness, turning of the part affected, and perpetual change of posture; the tossing about of the body being as incessant as the pain of the tortured joint, and being worse as the fit comes on. Hence the vain efforts, by change of posture, both in the body and the limb affected, to obtain an abatement of the pain. This comes only towards the morning. . . Next day (perhaps for the next two or three days), if the generation of the gouty matter have been abundant, the part affected is painful, getting worse towards evening and better towards morning. A few days after, the other foot swells, and suffers the same pains. . . After it has attacked each foot, the fits become irregular, both as to the time of their accession and duration. One thing, however, is constant – the pain increases at night and remits in the morning. . . In strong constitutions, where the previous attacks have been few, a fortnight is the length of an attack. With age and impaired habits gout may last two months.<sup>19</sup>

A number of eighteenth-century physicians continued Sydenham’s efforts to classify diseases. But rather than distinguish diseases by facts obtained from bedside inquiry as Sydenham had advocated, they mainly reorganized already existing descriptive data.<sup>20</sup> One of the most zealous and influential classifiers of disease

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of that period was the physician and botanist François Boissier de Sauvages. He introduced his ideas in a small volume on disease classification published in 1731, and fully developed them in a large tome, *Nosologia methodica, sistens morborum classes, genera et species* (1763). This last work announced the existence of 2,400 species of disease, divided into 10 classes, 40 orders, and 295 genera.<sup>21</sup> William Cullen, professor of medicine at the medical school in Edinburgh, attempted to reduce the number of disorders enumerated by this book. His 1769 treatise on disease classification deleted some categories of disturbances that Sauvages had formulated, such as sneezing, hiccough, snoring, anxiety, lassitude, stupor, itching, and coldness. Cullen defended this reduction as necessary, “unless we wish to have as many genera of disorders as there are symptoms.”<sup>22</sup> He declared that the goal of disease classification should be to define “pathognomonics,” symptoms that were “so proper to each disorder, that from them alone any one might be quickly and certainly distinguished from another.”<sup>23</sup>

Sydenham, Sauvages, and Cullen all based their classifications upon symptoms exhibited by the living patient. They rejected any idea that disease definitions required clarification from autopsies. Sydenham was particularly critical of anatomical study; he protested that anatomical investigation diverted the attention of physicians “from history and the advantage of a diligent observation of these diseases, of their beginning, progress, and ways of cure.”<sup>24</sup> Since for him bedside evidence was the most reliable source of medical knowledge, he believed that a physician could neglect “a scrupulous enquiry into the anatomye of the parts, as a gardner may by his art and observation, be able to ripen, meliorate and preserve his fruit without examining what kindes of juices, fibres, pores etc. are to be found in the roots, barke, or body of the tree.”<sup>25</sup>

Yet other physicians, even during the sixteenth century, had been acquiring clinically pertinent knowledge about health and illness from autopsies. Andreas Vesalius, a professor at Padua, greatly clarified understanding of normal anatomy and raised the importance of personal observation with his *De humani corporis fabrica* (1543). Before the work of Vesalius, the study of human anatomy had been hindered not only by social and religious prohibitions against dissecting the human corpse, but also by a reverent dependence upon the anatomical work of older authorities, such as the second-century physician Galen who, because of these prohibitions, had based his descriptions of the human anatomy chiefly