The medical man who reads Boswell's *The Life of Samuel Johnson, LL.D.* with a professional eye will find therein the history of a case of high blood pressure, the course of which can be traced through many familiar phases.

Johnson died at the age of seventy-five, on December 13, 1784. "His person was large and robust, I may say approaching the gigantic." To us nowadays, by a stroke of irony which he might have appreciated, for he was a water-drinker much of his life, "his countenance of the cast of an ancient statue" has been made familiar by an advertisement for beer! His face was scarred with scrofula, for which, at the age of thirty months, he had been taken to Queen Anne to be touched for the King's Evil; he remembered her dimly in later years as a "lady in diamonds and a long black hood." At the age of sixty-four, in spite of his unwieldy frame—for "when he walked it was like the struggling gait of one in fetters; when he rode, he had no command or direction of his horse, but was carried as if in a balloon"—he undertook the "Tour of the Hebrides": no small journey in those days for a man of his age, even for one in good health. But as by many, whose tissues are good, the high blood pressure was well tolerated, at first. His parents had lived long, his father dying at seventy-eight and his mother at ninety.

Gout, high blood pressure, and arteriosclerosis are closely associated, and it is with an attack of gout at the age of sixty-five that we see the first indications of the illness that troubled Johnson's last years. It is not surprising to find the "...pangs arthritic that infest the toe of libertine excess" as Cowper* called them, so prevalent in the glutinous eighteenth century, in one whose appetite can only be described as voracious.

Two years later, at sixty-seven, he writes to Boswell of another attack: "I was seized with gout, and am not quite well. The pain has not been violent, but the weakness and tenderness were very troublesome, and what is said to be very uncommon, it has not alleviated my other disorders." The idea of gout relieving other disorders was widely held; and one can recall several true examples of intercurrent infection curing another disease. The other disorders to which Johnson refers are, no doubt, "a difficult and laborious respiration,"

* The Task.

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which Boswell had already noted with alarm and foreboding; for which he "lost six and thirty ounces of blood in a few days," apparently with some benefit.

Next year Johnson writes: "The hand of time or disease is heavy upon me. I pass restless and uneasy nights, harassed with convulsions of my breast, and flatulencies of my stomach." Perhaps the gallstone that was found at autopsy was responsible for some of this gastric derangement. At the age of seventy-one he was "hindered by a vexatious and incessant cough," the treatment for which he describes thus to his friend and physician, Dr. Lawrence: "bled once, fasted four or five times, taken physick five times" (purges, no doubt) "and opiates, I think, six"—sound treatment for such a man, and perhaps fasting, in these days, might be recommended for plethoric patients more often.

On his birthday, however, Johnson felt that he was beginning the seventy-second year of his life with more strength of body and greater vigour of mind than, he thought, was common at that age. This is about the last reference to good health that we find. In the early part of next year he complains again of his bronchitis: "a troublesome time with my breath; and a violent cold," for which he was "let blood three times." A "catarrhous cough" still harassed him in June. Twelve months later, when he was seventy-four, Boswell comments: "My anxious apprehensions proved to be too well founded," for Johnson had a stroke. His vivid description of this attack is given in a letter to his old friend, Mrs. Thrale, two days later.

"I went to bed, and in a short time waked and sat up, as has long been my custom, when I felt a confusion and indistinctness in my head, which lasted, I suppose, about half a minute. I was alarmed, and prayed God that however He might affect my body, He would spare my understanding. This prayer, that I might try the integrity of my faculties, I made in Latin verse. The lines were not very good, but I knew them not to be very good: I made them easily, and concluded myself to be unimpaired in my faculties. Soon after I perceived that I had suffered a paralytic stroke, and that my speech was taken from me." For such a one as Johnson, this was perhaps the most severe deprivation that he could have suffered. But he was so little upset, "that I wondered at my own apathy."

He at once sent for his neighbour, Dr. Brocklesby, a Quaker, practising near the Strand, and for his "dear Dr. Heberden," of whom the poet Cowper* wrote,

"Virtuous and faithful Heberden, whose skill
Attempts no task it cannot well fulfill."

By July, he was able to write: "The physicians consider me cured, and I had leave four days ago to wash the cantharides from my head." He was sufficiently recovered to pay several visits in the country.

It seems likely that this attack was a transient paresis due to cerebral arteriospasm, of the type commonly met with in hypertensive encephalopathy.

In September he was again attacked by gout, which, he writes, "has within

* Retirement, Satirical and Didactic Poems."
these four days come upon me with a violence which I had never experienced before." At the end of the year Boswell records: "He was seized with a spasmodic asthma of great violence, being obliged to sit up all night in his chair, a recumbent posture being so hurtful to his respiration that he could not endure lying in bed." Such asthma was surely what we call cardiac: bronchial asthma would hardly appear for the first time at his age. This development of nocturnal dyspnœa was ominous; and the gravity of the outlook was increased by "that oppressive and fatal disease, a dropsy." In those days, one may remark, dropsy was regarded as a disease *sui generis*; it was not recognized as a result of failure of the heart.

Johnson had entered upon the last year of his life. The first attack of dyspnœa seems to have come on very suddenly on exertion. Early in December he was going to the opening meeting of a new club that he had founded, the "Essex Head," in Essex Street when, he writes: "I was seized with a spasmodic asthma, so violent that with difficulty I got to my own house, in which I have been confined eight or nine weeks, and from which I know not when I shall be able to go even to Church. A dropsy gains upon me; my legs and thighs are very much swollen with water." Anxious over these symptoms, and "extremely afraid of dying," he wrote to Boswell to ask him to obtain the opinions of the physicians in Edinburgh on his case. Before the advice came he seems to have already gained some "unexpected relief by the discharge of twenty pints of water." Perhaps this was due to the vinegar of squills which he had begun to take. Boswell wrote an excellent summary of his case, which he communicated to the great Edinburgh physicians, Cullen, Hope, and Monro. He noted the sense of præcordial constriction on exposure to cold (this winter was a very severe one), and mentioned the tincture of laudanum Johnson took for his nocturnal dyspnœa. But what the doctors advised is unfortunately not recorded.

Johnson was interested in his symptoms, and had read Sir John Floyer's book on asthma. One may recall that Floyer was for many years, until his death in 1734, physician at Lichfield, the birthplace of Johnson, and possibly may have attended him as a child and advised his being touched by Queen Anne. Writing to his friend Langton in March, 1784, he remarks: "My asthma is, I am afraid, constitutional and incurable; but it is only occasional, and unless it be excited by labour, or by cold, gives me no molestation, nor does it lay any close siege to life, for Sir John Floyer, whom the physical race consider as author of one of the best books upon it, panted on to ninety as was supposed." From this one gathers that Johnson thought his case might have a similar prognosis. But he was quoting without the book. During the spring and summer he was free from dropsy, and was able to take a jaunt to Oxford in June, and thence on to Lichfield for five days. Here, on July 19, he apparently borrowed Floyer's text book from the Cathedral library* for further information about his asthma, which seems to have returned. The conclusion was unsatisfactory. Writing to Dr. Brocklesby the next day he reported that "The asthma has no abatement. Opiates stop the fit so that I can sit and sometimes lie easy... I am looking into Floyer, who lived with his asthma till almost

* *Floyer*, by J. A. Gunn, in *British Masters of Medicine*.
his ninetieth year. His book by want of order is obscure; and his asthma, I think, not of the same kind with mine.” In which deduction he was correct, for Floyer had bronchial asthma all his life, and Johnson’s was certainly cardiac.

This holiday and its travelling in coaches was too much for his heart. The increasing dyspnoea was followed by a return of dropsy in the middle of August. It is interesting to note that in one letter he says: “My respiration gets more and more ease and liberty. I went to Church yesterday after a very liberal dinner, without any inconvenience,” while a few lines further on he remarks: “the water rises, though it does not rise very fast.” Evidently the relief of the dyspnoea occurred when the failure of the right ventricle began to ease the state of his pulmonary circulation, embarrassed by a failing left ventricle. “The squills I have not neglected; for I have taken more than a hundred drops a day, and one day took two hundred and fifty, which, according to the popular equivalent of a drop to a grain, is more than half an ounce.” Thanking his physician for his attention, he pays him the neat compliment: “If the virtue of the medicines could be enforced by the benevolence of the prescriber, how soon should I be well.” But he could be critical enough of what was prescribed if he thought it of no value. Perhaps something other than squills had been suggested. “I never,” he writes to Brocklesby, “thought well of Dr. James’s compounded medicines.” One may recall that Dr. James patented a famous febrifuge powder of phosphate of lime and oxide of antimony. Johnson esteemed him, for he wrote a dedication to Dr. Meade in his book, and said of him, “no man brings more mind to his profession”—“This prescription exhibits a composition of about three hundred and thirty grains, in which there are four grains of emetic tartar, and six drops of thebaick tincture.” (This was tincture of opium, for opium was prepared at Thebes). “He that writes thus surely writes for show. The basis of his medicine is the gum ammoniacum” (an expectorant from dorema ammoniacum), “which dear Dr. Lawrence used to give, but of which I never saw any effect. We will, if you please, leave this medicine alone. The squills have every suffrage, and in the squills we will rest for the present.” His critical mind detected the shams of the mediæval polypharmacy still much in vogue, and recognized a potent drug when he tried it. As a result, by October the failure seems to have abated, for he could write that he was relieved from the dropsy. After visiting Birmingham, and Oxford again, he was back in London by the middle of November. The journeys seem to have brought on heart failure again, for he writes: “I am as I was, and having seen Dr. Brocklesby, am to ply the squills.” Up to this date he had kept a Latin diary of his case, “Aegri Ephemeris,” but it has not survived.

The end was near. The dropsy rapidly accumulated once more. In order to relieve it incisions were made in his legs by Cruikshank, the surgeon; “a sweet blooded man,” as Johnson called him, but a timid operator, who did not cut deep enough to satisfy his patient, who himself “with his usual resolute defiance of pain cut deep, when he thought that his surgeon had done it too tenderly.” A few days before his death he appropriately quoted to Brocklesby the lines from Macbeth:
His physician at once capped the quotation by answering

". . . therein the patient
must minister to himself."

a neat rejoinder, which pleased Johnson much, if it gave but little physical help. On hearing that he could not recover, he refused all further drugs; he wished to have his mind unclouded at the end. So he died quietly, somewhat troubled with breathlessness and pain in the legs, his mind clear, on December 13. He complained less of his dyspnea in this, his third and last, attack of failure than at first, presumably because once again failure of the right ventricle came on fast.

The report of the post-mortem examination can be seen in the library of the Royal College of Physicians. It was done two days after death by Dr. J. Wilson; Mr. Cruikshank and Dr. Heberden being present. I quote the account. "Dr. Johnson being very importunate to have the water entirely gone, the morning of the day on which he died, repeated the operation himself, and cutting very deep. For several years he had been troubled with asthma, for which he commonly used to take opium. The lungs did not collapse as they usually do when air is admitted, but remained distended as if they had lost the power of contraction. The air cells on the surface of the lung were also much enlarged, the right lobe adhered very strongly to the diaphragm. No water was found in the cavity of the thorax. The heart was exceedingly large and strong; the valves of the aorta were beginning to ossify. No more fluid than common was contained in the pericardium. In the peritoneum there seemed to be incipient peritoneal inflammation and ascites. The liver and spleen were large and firm. The spleen had almost the feel of cartilage. A gallstone the size of a pigeon's egg was taken out of the gall bladder." He had not been much troubled by this stone apparently; very likely it was a cholesterol solitaire, which often causes little or no symptoms. The account describes also "hydatids" in the right kidney, and how the left was almost entirely destroyed, with two very large hydatids formed in its place. "Mr. White pricked his finger. The next morning he had red lines running up his arm, and a slight attack of fever."

The autopsy revealed much that we would expect. The severe degree of hypertrophic emphysema was likely to be found in a man who had suffered much from bronchitis, and it contributed a great deal to the acuteness of his dyspnea. The great hypertrophy of the heart was no doubt the result of high blood pressure, for the early calcification of the aortic valves can hardly have amounted to actual stenosis. The liver and spleen showed the effects of chronic venous engorgement. The kidneys were of the small
gouty type, with retention cysts, but there is no hint that they were deficient enough to cause uræmia.

SUMMARY

The medical history of Samuel Johnson is that of a man, with good family history, who had gout and developed high blood pressure, probably rather late, and then had a transient stroke. Failure of the left ventricle came on, and emphysema aggravated his symptoms. He was, for a time, successfully treated by rest, squills, and opium. But on his recovery, he undertook too much travelling and brought on failure again. He finally died in his third bout of heart failure, about a year after the onset of the first attack.

It seems natural and almost inevitable that Dr. Johnson, so loved by Englishmen for his ordinary qualities, should have died from such a common and straightforward combination of diseases.

The fact that Boswell's description enables one to deduce so much, and that it might indeed serve as a model lesson for a medical student, goes some way to explain the immense popularity of his book.