I see no harm in doing a similar operation; the diagnosis of concretion on the right side being clear.

Before I conclude, I have to touch for a moment on a special question which has been specially asked of me. It is this. What are the conditions leading to hyperinosis? To this question I give frankly the answer, that it is at present unanswerable. To approach it even requires a new and extended inquiry into the whole subject of the oxygenation of animals—a point to which I may at some future day be enabled to call the attention of the profession, with a knowledge yet to be learned, and aspirations yet to be realised! *Valete.*

Lectures

ON

THE HISTORY OF MEDICINE.

DELIVERED AT

THE GROSVENOR PLACE SCHOOL OF MEDICINE.

BY

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LECTURE II.

Origin of Medicine. Difficulties of its Investigation. General Characters of the Early Stages of Medicine. Medical System of the Ancient Egyptians. Grecian Legends. Apollo. The Cabiri. Orpheus. Incantations. Melampus. Chiron. Heroes of the Homeric Poems. Æsculapius: Examination of the Myth concerning him. Machaon and Podalirius. The Æsculapian Temples and Symbols. Practice of the Asclepiads. Summary.

In the present course of lectures, I intend to confine my observations principally to the history of medicine as it existed in early ages among the Greeks. This limitation is imposed by the necessities of the case; for the subject is so vast, that a much more extended course would be required to develop the whole history of medicine in a manner which should be at all instructive to you as hearers, or creditable to me as lecturer—even if we rigorously confined our examination to the course of that great medical stream which has steadily flowed down from the earliest Grecian records to our own days. It would be interesting, too, to trace the progress of the parallel but distinct streams in which medicine has flowed in other nations, in India, for example; but this must also be deferred.

In entering on the history of any science, the first question which naturally occurs is—What was its origin? What were the circumstances that first led men to its cultivation? When we apply these questions to medicine, we find ourselves at once unable to answer them in any other way than by conjecture; for the origin of medicine reaches even beyond the period of fable. Yet we may make such conjectures as shall have an air of probability, by keeping in view the parts of man's mental constitution which would be most likely to be called into action in originating a system of healing disease and injury.

The origin of medicine was doubtless connected with the love of health and life, which is instinctive in all. Disease or injury impaired the power of man to act as he had before acted, and produced a feeling of discomfort; still further, disease or injury produced death. The first intimation, then, that these misfortunes were not altogether irremediable, but that means existed by the application of which certain of them might be relieved, would, it may be well imagined, be received with delight; and the lesson taught would be carefully stored up for future application. For, not only would the instinctive feeling of self-preservation be prominent, but also the godlike feeling of compassion for the sufferings of another, the affection arising from the ties of kindred, and perhaps some share of selfishness, would all, apart or together, induce men to seize on every means of relieving disease, and, if possible, of obviating death. The intellectual process was doubtless often one of observation and inference, in its simplest form. A circumstance, ordinary or accidental, was noted, in which a certain cause was followed by a certain beneficial effect; and then the inference was drawn, that the application of the same cause should, in similar cases, produce a similar effect. Let us suppose two or three illustrative instances—highly probable, though purely imaginary.

A man lies tossing in violent convulsions, with large, almost bursting, blood-vessels, starting eyes, and other fearful symptoms. The bystanders are perplexed: they see the danger, but know not how to meet it. At last, blood bursts from the nostrils of the patient, and he is relieved. A man among those standing by draws rapidly the inference that the loss of more blood would be followed by more relief. He therefore makes a gash into some part of the body, so as to draw more blood; and this act is observed to bring back, as it were, life to the patient.

A man eats a portion of some vegetable substance, perhaps more than once, and finds himself fearfully purged. At another time, he is seized with symptoms of a febrile character; a free action of the bowels sets in, and the symptoms are relieved. The same symptoms may again occur in him, or in another man; but they remain intense, for the bowels are constipated. What more natural, than that it should immediately occur to him to use some of that same herb which had before purged him? He takes it, or gives it to his sick friend; relief follows; and a remedy is established.

In such simple manner, doubtless, were the effects of various remedial measures made known to man; and illustrative instances might readily be multiplied.

While we have the subject of the origin of medicine before us, it is interesting to notice the opinion put forth by Hippocrates, in his treatise *Περὶ ἀρχαῖς ἰατρικῆς*, *On Ancient Medicine*. Medicine is there made to be, as it were, a corollary to dietetics.

"The art of medicine," he says, "would not have been invented at first, nor would it have been made a subject of investigation (for there would have been no need of it), if, when men are indisposed, the same food and other articles of regimen which they eat and drink when in good health were proper for them, and if no others were preferable to these. But now necessity itself made medicine to be sought out and discovered by men, since the same things, when administered to the sick, which agreed with them when in good health neither did nor do agree with them." Hippocrates argues further, that this process was the same as that by which man arrived at the knowledge of the ways of preparing food so as to render it wholesome. And he includes this dietetic discovery also under the name of medicine; "since it was discovered for the health of man, for his nourishment and safety, as a substitute for that kind of diet by which pains, diseases, and deaths, were occasioned." These speculations are most ingenious and interesting; and for the full account of them, I must refer you to the Hippocratic treatise from which I have quoted them.

Observation of the effects of certain herbs on animals might also have given hints as to certain remedies. The fable of Melampus, to which I shall afterwards refer, points to this.

The illustrations I have given will sufficiently suggest the manner in which the art of healing may be supposed to have arisen.

In entering on an examination of the first notices we find of the history of medicine, several great difficulties at once oppose themselves to us. In the first place, medical history, like other history, is in its beginning so enshrouded in fable and mythology that it is difficult to always discern the truth. Again, it is very probable that we do not possess all the works of the ancient writers on medicine; and the narratives of the lives and writings of many have failed to reach us. Yet, notwithstanding these and other difficulties which stand in our way, we may, principally from the writings of the poets and historians, form some idea of what was the state of medical knowledge in the mythical or prehistorical period.

In the primitive state of medicine in all countries where we have the earliest account of its practice, there are certain common characters, among which I will enumerate the following:—

1. Disease is popularly looked on as the direct effect of the anger of offended deities, and removable only by propitiation.

2. The origin of medicine for the relief of disease is also attributed to the deities; partly, no doubt, from the idea that the means of removing an evil lay with the producers of the evil; and partly from the exercise of a feeling of honour and gratitude on the part of the people towards those whose medical knowledge had proved the most extensive and most beneficial. Kühn, in his essay *De Philosophia ante Hippocratem Medicinæ Cultoribus*, supposes that the knowledge of the uses of medicines, having been found out piecemeal and principally by accident, in the way which has been imagined in the former

part of this lecture, was handed down traditionally from father to son. In course of time, the amount of knowledge would become greater than ordinary minds could contain; and the art would probably be more assiduously cultivated and more rapidly developed in some families than in others. He, then, who possessed the greatest acquaintance with medical art, and who produced the greatest amount of benefit by the practical application of his knowledge, would be respected by his contemporaries and immediate successors, and would often, in after times, be enrolled among the number of those to whom divine honours should be paid. Such, Kühn supposes, was the case with Æsculapius, the medicine god of Greece.

3. The prevalence of the idea that disease and the cure of disease were of immediately divine source would inevitably lead to the concentration of medical knowledge in the hands of the priests of the several deities who were supposed to have any interest in matters medical. For obvious reasons, the priests would foster the notion, on the part of the people, that the removal of disease could be effected only through their intermediate agency; and thus they would become the repositories of medical knowledge: probably not of all, however; for it is difficult to imagine that the practice of surgery—the treatment of wounds and injuries—did not remain in the hands of the laity. Wounds received in battle, for instance, could certainly not always come under hieratic treatment.

4. In the early ages, medicine was cultivated as one art; there was no division into distinct departments, as obtains in the present day. The Greeks have but one word for a medical practitioner; *ἰατρῆς* in Homer, and *iatros* in the ordinary Attic dialect—the word literally meaning a healer.

Before we enter on a consideration of the history of medicine among the Greeks, our attention is first claimed by the state of the science in that remarkable country, Egypt; from which, according to tradition, Greece was indebted for a part at least of her civilisation. Whether the cultivation of medicine, of astronomy, and of other sciences, was altogether indigenous to Egypt; or whether, as seems not improbable, the Egyptians in their turn were indebted for much to the Phenicians, is a question on which the limits of this course do not permit me to enter. I will therefore merely take up medicine as it is recorded to have existed in ancient Egypt, and give a brief sketch of its reputed condition.

The medical system of Egypt was essentially hieratic. Medicine was, we may say entirely, in the hands of the priests; and the divinities of the Egyptian mythology play a prominent part in regard to medicine. Osiris, Isis, Horus, Thoth or Hermes, Apis, Esmun, and Serapis, are each and all, in Egyptian myth, connected with the cause or the cure of disease.

Osiris, supposed to have been the symbol of the sun, was reputed to be the greatest benefactor of Egypt. He was said to have taught the natives agriculture and other useful arts; and to have been slain by Typhon, a fable which is explained by the deleterious effects of the simoom of the desert in destroying the benefits of the sun and Nile.

Isis, supposed to represent the moon, and Horus, the personation of solar influence, were regarded by Egyptians as the causes of many diseases, and the discoverers of many remedies. This idea, if our interpretation of the symbolical character of the Egyptian gods be correct, would be an embodiment of the doctrine regarding the influence imagined to be exerted by the moon and by the periods of the day on the production and changes of disease, and on the properties of medicinal substances. The sick were exposed in the temples of Isis, that they might learn, from revelations imparted in dreams, the proper treatment for their diseases. Bear this in mind, when, in a subsequent part of this lecture, I speak of the practice of the priests of Æsculapius.

Serapis was another great medical divinity among the Egyptians. Anciently, he appears to have been the same as Osiris; but after the conquest of Egypt by Alexander the Great, he was confounded with the Pluto of the Greeks, and had attributed to him the power of curing diseases. The sick frequented his temples; and we meet with a notice of this as far down as the time of Vespasian.

Thoth, whom the Greeks called Hermes Trismegistus, or the Thrice-great Mercury, occupies a very prominent position in ancient Grecian medicine. He is said to have been the friend and secretary, or prime minister, of Osiris; and to have taught the Egyptians the arts of writing, arithmetic, geometry, astronomy, and music; to have given laws to the people, regulated their religious ceremonies, and cultivated the olive in the country for the first time. This myth apparently represents the introduction of these arts into Egypt, probably by Phenicians.

To Thoth is attributed also the invention of medicine. At first, his precepts were recorded on columns, to which, it is believed, additions were made by his successors—the priest-physicians with others. This went on for a time, until, when the use of papyrus was found out, the Hermetic knowledge was collected into a book called “Ambres,” or “Embres,” in which the rules of medical art were comprehended, and the precepts of which the priest-physicians were bound to follow. Diodorus Siculus tells us that, when they followed closely the directions given in the book, they were held free from all blame, even if the patient died; but, if they deviated at all from the precepts, they incurred the penalty of death, even if their practice were successful. It is supposed that this book contained the records of semeiological observations, made by the successors of Hermes; and an ancient author tells us that, “There is among the Egyptian priests a book called the Sacred Ambres, from which they judge of the patient as he lies down, whether he is likely to recover or not, forming their position from the position of the patient.” The importance of noticing the decubitus, then, as affording a valuable indication in prognosis, was recognised in very ancient times.

In later ages, after a free intercourse had been established between the Greeks and Egyptians, a large number of writings were attributed to Hermes. These included treatises on anatomy, medicine, diseases of women, diseases of the eyes, surgical instruments, and materia medica. But it is generally agreed, that the works were of comparatively modern origin; and it may not unreasonably be supposed that they were derived in great measure from the writings of the Greek physicians, and attributed to Hermes, the reputed father of the medical art, by the Egyptian priests, for the purpose of giving the writings greater sanctity and importance in the eyes of the people.

What, then, was the state of medical science in ancient Egypt? Here, as, in similar instances, our inquiry is impeded by the jealous care with which the priests retained knowledge in their own hands. Their knowledge of anatomy and physiology we may regard as having been very small. For, to touch a dead body with a cutting instrument was a crime; and even the paraschist, or person who made the incision into the body in the process of embalming, was, as Diodorus informs us, obliged immediately to fly, amid a shower of stones from the bystanders. A few of their rude notions have been recorded. The priests imagined, that the heart increased in a certain definite ratio every year up to the age of 50; after which time, it gradually diminished in the same proportion. They believed, also, that a nerve or tendon passed from the little-finger to the heart; and therefore they dipped this finger in the libations at sacrifices.

As regards practical medicine, diseases were popularly regarded as the direct effects of divine anger, and curable only by appeasing the offended deities. Hence the priests were the only physicians of Egypt; and, in their hands, the art of healing became ostensibly a system of religious worship paid to the divinities of the country. And we learn that they took every precaution to keep the people in ignorance; for they disguised the names of the drugs which they used in allegorical language, and medicine was taught as a divine secret to the initiated only. This hereditary transmission of medicine within the order of the priests, and the possibility of entirely veiling all knowledge of the art from the external world, would have the natural effect of retarding all progress; especially when we conjoin with this the rigorous, apathetic character which is attributed to the ancient Egyptians.

While the treatment of disease ostensibly consisted in superstitious ceremonies, we may suppose that in many instances the cure was left principally to Nature; and that much of the active treatment consisted in favouring the evacuations which had been observed to occur in the course of disorders. Of special medicines, we have a few notices. Squill, for instance, is said to have been used in the neighbourhood of Pelusium as a remedy in dropsy; and the *ἀερίτης*, or eagle-stone, a kind of oxide of iron, was employed in the same malady, and in tympanitis. Of their real acquaintance with medicines, however, we know but little.

Of their surgical skill, the records are very scanty. It cannot have been great; since it is stated that the Egyptian priests were unable to cure Darius Hystaspes of a sprained foot, which was, however, successfully treated by a Crotoniat practitioner.

But, in the history of Egyptian medicine, the hygienic rules are the most remarkable; and the study of them is interesting, both in connection with the laws of Moses among the Jews,

and with the precepts taught by some of the Grecian philosophers, of whom we shall have occasion to speak.

The priests themselves were subject to very strict rules of life. Cleanliness was strictly enforced. They were obliged to wash themselves twice by day, and twice at night, and to cut their hair every third day. Circumcision was also practised among them; and we are told that Pythagoras, desiring to become acquainted with the rules of the Egyptian priests, was obliged to submit to this rite. Woollen clothing was forbidden; linen and cotton only were allowed to be used. Their food consisted of vegetables, and of the flesh of those animals which could be sacrificed to the gods. The selection of certain animals was no doubt made, in part, on sanitary grounds; but also from superstitious reasons, the origin of which cannot be traced out. Cows were never sacrificed, because they were sacred to Isis; but oxen were offered—and therefore their flesh was eaten. Swine were not sacrificed; and their flesh was eaten by the priests only once in each year, at the full moon. Fishes and other marine animals were prohibited. Among vegetables, farinaceous legumes and onions were forbidden; the leguminous plants, either because they were difficult of digestion, or because of some unknown mystic reason. Whether wine was permitted is a question which is not altogether decided.

The hygienic rules which guided the laity, although less severe than those to which the priests were subject, were very strict. Even to the kings, a fixed quantity of food and drink was prescribed; and, in the temple at Thebes, an inscribed pillar contained imprecations against Menes, one of the kings, for having broken through the rules of frugality. All the functions, even that of generation, were, as far as could be, subjected to laws, and time was specially fixed for their performance. The children went with naked feet, and ate little but fruits, roots, and the marrow of the papyrus. Every Egyptian was compelled each month to undergo a three days course of emetics, purgatives, and enemata; for, as Herodotus and Diodorus inform us, they imagined disease to arise from excess, and from the retention of undigested food. The result of attention to a hygienic code is shown in the statement of the ancient writers, that the Egyptians were a healthy and long-lived people.

[To be continued.]

Original Communications.

MEDICAL CASES.

By C. M. DURRANT, M.D., Physician to the East Suffolk and Ipswich Hospital.

CASE I. Hysterical Somnolency. A young woman, aged 22, was brought to me by her mother, who stated that her daughter had been in the habit, for eight or nine months, of dropping off to sleep constantly during the day; that these attacks would often occur every five minutes; and that, even when walking, she would sometimes stop suddenly and fall asleep. The only history that I could obtain was, that she had been much excited and fatigued by a close attendance upon an epileptic and hysterical sister, and that this somnolency had followed the subsidence of the disease in her sister. She had not been in my room for more than three minutes, when she fell asleep, and remained breathing somewhat heavily for about two or three minutes, when she awoke with a start, and conversed as usual, but as suddenly, during the conversation, she relapsed into sleep, and which recurred six or seven times during the visit. Her countenance was sallow, and her expression heavy and unexcitable; the pupils acted naturally, and were not dilated; she had no headache; the tongue was coated, its edges were indented by the teeth; the pulse was languid, and not accelerated; the extremities were generally cold; the appetite was good, indeed she was always hungry; the catamenia had been suppressed for five months; the bowels were always constipated. She was ordered to use a tepid sponge bath every morning, to be followed by brisk friction; to take a saline mixture, with the compound tincture of valerian; and to take, at night, pills containing calomel, colocynth, colchicum, and croton oil, alternately with pills composed of blue pill, sulphate of zinc, and galbanum. This treatment was continued for some weeks, during which she steadily and uninterruptedly improved in health, and became less somno-

lent, and ultimately, the catamenia reappearing, her friends reported her well.

REMARKS. This case is interesting, as illustrating in a marked degree one of the many phases of the hysterical diathesis. The symptoms were clearly attributable to an over-excited and, subsequently, exhausted nervous system, super-added to the powerful influence of imitation; for, on inquiry, I found that the younger sister, aged 12, in addition to the seizures which appeared to have been epileptiform, subsequently suffered from hysterical somnolency, although in a less marked degree than obtained in the elder. Dr. Copland refers to this form of hysteria, and states, "that the irritation, whether mental, cerebral, or uterine, seems to induce congestion of the vessels of the head." In the above case, the mental excitement, with its consequent exhaustion, engendered both the suspended menstrual function, and also the impeded cerebral circulation.

CASE II. Albuminuria, followed by Atonic Peritonitis and Death. Autopsy. A.B., set. 17, a labourer at an iron foundry, was admitted as an in-patient of the Ipswich Hospital, March 14th, 1860. On admission it was stated that he had been ill only a fortnight; that he had taken cold, and that he had been swollen "all over" since the attack.

On examination, the nature of the disease was at once apparent. His face was pallid, pasty, and swollen; the eyelids were oedematous; the feet and legs very much swollen and pitting; the integuments of the abdomen were anasarcaous, with an indistinct sensation of fluctuation in its cavity. The tongue was tolerably clean; the pulse feeble, not accelerated; the bowels were confined; the urine was diminished in quantity, and becoming almost solid on the addition of heat and nitric acid. The heart's action was feeble, but the sounds and rhythm were unaffected, respiration was accelerated, with some oedematous crepitation at the base of the left lung.

He had ridden to the hospital in an open cart, the day being very cold. He was at once sent to bed; and as the dropsy was of such recent occurrence, he was ordered to lose a few ounces of blood by cupping over the kidneys. In addition to this, citrate of ammonia, with spirit of nitric ether, was prescribed.

March 15th. He was much in the same condition. The difficulty of breathing was increased, which appeared to be rather the result of increasing debility than of additional effusion. The bowels had acted several times very copiously without aperient medicine; the stools were bilious and watery. Pulse feeble, but not much accelerated. He was ordered to have two ounces of gin in water.

March 16th. The purging continued. The oedema of the face was quite gone. The urine was much less albuminous. His debility had increased. The tongue was getting brown and dry. Some tenderness was complained of on pressure over the abdomen. He was ordered sesquicarbonate of ammonia, bicarbonate of soda, with tincture of opium, with chalk mixture in addition, if necessary; and to take half an ounce of brandy in water every four hours. The abdomen was ordered to be fomented, and twelve leeches to be applied if the tenderness continued.

March 17. The abdominal tenderness was much increased; the purging was diminished. The leeches had been applied without relief. The tongue was dry and brown; and there were sordes on the teeth. Pulse 120, very feeble. There was no abnormal heat of skin. A blister was ordered to be applied to the abdomen, and he was directed to continue the brandy every two hours. Beef-tea had been taken freely from the commencement.

March 18. All the symptoms were much worse. He still complained of great pain and tenderness of the abdomen, which the blister had not relieved. He took the brandy and beef-tea without difficulty. The purging was much diminished. He was ordered one grain of opium immediately, to be repeated every four or six hours, if necessary.

The abdomen became tympanitic; and he gradually sank exhausted on the following morning, the brain remaining unaffected to the last.

Autopsy. The abdominal cavity contained a considerable quantity of sero-purulent fluid; the peritoneal covering of the intestines showed patches of inflammation, but not of a plastic character. This was more particularly evident on the surface of the larger bowels. The peritoneal reflexion over the bladder and walls of the pelvis was evenly coated with a thin layer of pus. The same secretion existed also upon the serous covering below the liver, as well as upon the abdominal wall generally of the right side. The intestines themselves, with the