LETTSONIAN LECTURES

ON

SYPHILIS AS A CAUSE OF DISEASE OF THE NERVOUS SYSTEM.

Delivered before the Medical Society of London.

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LECTURE III.—Continued.

Syphilitic Disease of the Cerebral Membranes.—The cases in which the membranes are more gravely affected, and the grey matter of the surface invaded or involved, or deprived of blood, present an inexhaustible variety of symptoms, from different combinations and successions of convulsive and paralytic affections and intellectual derangements. Speaking generally, paralysis of cranial nerves and of the limbs, gradual in their mode of access, are characteristic of disease about the base of the brain; convulsions and mental affections of disease on the convex surface of the hemisphere.

No strict line of demarcation can be drawn between the cases in which there is extensive exudation in the membranes, and those in which the morbid process results in the formation of distinct tumours. In the former, the deposit frequently here and there takes the form of a nodule, which projects into the brain-substance, and a syphiloma is accompanied by, or sets up, changes in the adjacent part of the meninges. I shall not, therefore, attempt to lay down distinctions between diffused and localised syphilitic exudations, but, in the brief comments I may make on the cases, show how I have come to my conclusions as to the seat and character of the lesion. The cases I give first will be illustrations of disease in the membranes about the base of the brain.

CASE I. James A., aged 58, a tinman, of drunken habits, was admitted into St. Mary's Hospital, under Mr. Spencer Smith, December 12, 1870. He had had some venereal affection twenty years before; had suffered from ulcerated sore throat two or three times since, but not from cutaneous eruptions. Eighteen months before admission, he had fallen and struck his head. After this, a swelling appeared, which, after nine months, was opened. There was a large discharge of pus, and the wound healed in five weeks. While the abscess was forming, he had a fit, which came on suddenly, while he was sitting by the fire; he was convulsed and unconscious, stupid during the night, and quite well next morning. Two months before admission, pain came on in the right side of the head, more at the back than in the forehead; at the same time the eyelid dropped, and soon afterwards numbness and weakness of the left arm came on. The pain in the head continued. When he came under my observation, there was complete ptosis of the right eyelid, and the only movement of the eye was a slight up-and-down motion; it could not be carried laterally in either direction. The eye was fixed in the median plane; the pupil was about the same size as in the other eye, sluggish in responding to light, and apparently more ready to act on the other eye being opened and closed, than when light was admitted to it. When both eyes were open, by the right lid being raised, there was double vision. There was no obvious facial inequality; he could whistle, and show the upper teeth well. A very little deviation of the tongue to the left was observed. Sensation was diminished on the left side of the face, and in the left arm, side, and leg, and the left limbs were decidedly weakened, without being absolutely paralysed. Pulse, 50. He lay in bed, taking no notice, unless compelled by questions; the expression was that of suffering, and he moaned from time to time; the face was flushed. He passed urine naturally; the bowels were confined. A depression could be felt near the posterior end of the sagittal suture, where the abscess had been situated. Leeches were applied to the temple. Iodide of potassium and bichloride of mercury were given, and he gradually recovered, except that paralysis of the right external rectus, supplied by the sixth nerve, persisted.

Here, with complete paralysis of the right third and sixth, and probably fourth, nerves, and partial motor and sensory paralysis of the entire opposite half of the body, there could be no doubt as to the seat of the lesion. It could only be at the base of the brain, round the right crus cerebri, involving the nerves of this side in the intracranial part of their course, and affecting the crus, which here contains the fibres, sensory and motor, of the entire opposite half of the body. The

character of the morbid change was, with almost equal certainty, syphilitic inflammation, attended with gummatous deposit in the pia mater.

He was discharged about the middle of February, apparently well, but with paralysis of the right sixth nerve persisting, and was readmitted six weeks later, on March 30th, with right hemiplegia. He had remained well for a short time, but the headache again came on, and, two days before his admission, the paralysis. He had apparently been drinking considerably since he had left the hospital. He was in much the same condition as before, recognised me at once, and gave substantially the same history, as when first seen, except that he said the same limbs were paralysed in the present as in the previous attack, namely, those of the right side; whereas, as has been seen, from the notes taken at the time, the hemiplegia was left-sided, and the case was one of cross paralysis. The right hemiplegia was more marked, the face being decidedly affected, and the tongue deviating considerably; the hand was very weak, and though he could walk, it was with a halt, in which, however, the right foot was kicked out, and not dragged. The internal strabismus of the right eye, left by the former attack, persisted, but no double vision was complained of, the right eye apparently having gone out of use. There was no affection of sensation. He again recovered, under similar treatment.

It is probable that the syphilitic inflammation and deposit had extended into the left fissure of Sylvius, compressing, and for a time obstructing, the vessels supplying the corpus striatum.

CASE II.—In the following case of a gentleman, aged about 45, seen with Dr. Carpenter of Croydon, the result was less fortunate. I have not the details of his syphilitic history; but he had had disease before marriage, and again within a comparatively short period of the attack of cerebral mischief which proved fatal. This dated from an epileptiform seizure three weeks before I saw him, which happened while the patient was away from home at Brighton. He was found by Dr. Carpenter after this attack in a sort of stupor, with general muscular weakness, but with no paralysis of the limbs, and only a slight drooping of the right eyelid. He had received little attention till Dr. Carpenter reached him, and was suffering from want of food. He gradually became worse; and a red spot, noticed on the top of the head (which was bald), had developed into a large rupial ulceration, while other rupial patches had appeared—one on the back, another in the right axilla, and a third on the right hand. He lay on the left side all in a heap, his head bent on the chest, the knees drawn up, the eyes closed, and taking no notice unless spoken to. He answered chiefly by monosyllables, but evidently understood questions, and replied intelligently, though he was not accurate in the time he named as the duration of his illness. When he was asked to open the eyes, the right remained closed; and, on examination, the third nerve on this side was found to be completely paralysed. The eye moved outwards readily, but never inwards beyond the median plane, and motion upwards and downwards was extremely slight; the pupil was dilated and immovable. Vision was said to be good, and not double; but, when tested by holding up a candlestick at a distance of about a yard and a half, for the purpose of ascertaining whether one or two images were seen, the patient called it three several times a teaspoon. The left pupil was large and sluggish, not contracting to the physiological extent when a candle was brought near. With the paralysis of the right third nerve, there were almost complete motor paralysis of the left limbs and face, greatly impaired sensation in the left arm and left side of the body, a slighter degree of impairment of sensation in the leg, and apparently no loss of sensation in the left face. Respiration was shallow; there was no chest-movement in ordinary respiration; in deep breathing, movement of the right chest only; no excavation of the abdomen. The pulse was 80, full and regular, while he was quiet; but, on speaking, accelerated and irregular in force. Iodide of potassium was given in large quantity, by enema as well as by the mouth, and the scalp was blistered, but without any result.

When seen again on July 10th, he lay on his back, moaning frequently, and moving the right leg. He was unable to speak, but he made attempts to put out the tongue when asked. Vision was lost for some days. Urine and feces passed in bed. Swallowing was difficult; hiccup was troublesome; pulse very weak; respiration frequent, with an occasional cough. The paralysis in the left limbs and face was very obvious. He did not seem able to open either eye; and when the lids were raised, both eyes were turned outwards and motionless, and the pupils were large. The rupia had increased. The patient soon afterwards died. No *post mortem* examination was allowed.

Dr. Carpenter had come to the conclusion that the cerebral affection was meningitis, from extension inwards of inflammation from the rupial ulcer on the scalp; but the mischief was clearly at the base of the brain in the interpeduncular space, involving, as in the last case, the crus and the third nerve, and giving rise to one of the forms of cross paralysis,

afterwards extending to the other side, and implicating the other third nerve.

CASE III. I saw a very similar case with Mr. Walter Coulson soon afterwards. A young gentleman, aged 24, was suffering from rupia, although the syphilis was of comparatively recent date. On August 9th, his face was distorted and his articulation indistinct, and next day there was left hemiplegia. He had gradually become worse, but up to Sept. 14th he was able to speak and swallow; he then had a kind of fit, and after this never spoke, and all food put in the mouth was returned.

I saw him on September 17th. He was lying on his back, apparently unconscious. The pulse was rapid and fluttering; the breathing stertorous, rapid, and irregular; the eyes closed; the face heavy looking, but not distorted. He pressed the hand when told, but did not open the mouth or show the tongue. The left limbs were paralysed—the arm more than the leg; sensation was not lost. There was resistance when the eyelids were raised. The right eye was turned outwards and immovable; the pupil was greatly dilated and insensible. The left eye moved freely, and the pupil acted. Here, again, therefore, there was paralysis of the right third nerve and of the left limbs—a cross paralysis caused by disease round the right crus cerebri.

Iodide of potassium had been administered freely. The patient died within twenty-four hours of my visit, and there was no opportunity for making a *post mortem* examination.

CASE IV. *Spinal and Cranial Pachymeningitis; Epileptiform Attacks; Paralysis of Cranial Nerves; after a time, Slight General Paralysis, with Exaltation; ultimately, Insanity.*—A gentleman whom I saw with Mr. Walter Coulson had had tertiary forms of syphilis, and was, in 1866, suffering from spinal meningitis, and from what I took to be general syphilitic inflammation of the dura mater. He had intense pain in the head, a feature of which was, that it would come on instantaneously when he lay down, in the part of the head which was lowest, and, when he turned round, would instantaneously shift to the side which rested on the pillow. His features had a heavy expression, and there were slight paralysis of the right external rectus muscle and double vision. He improved greatly under iodide of potassium, but was imprudent, courted excitement, ate voraciously, and took little exercise. Early in 1867, he complained, on several occasions, of a sudden powerful stink encountered in the street, which nearly overcame him, and he appeared not to know fully what he was doing afterwards. These were the precursors of epileptiform attacks of great severity, which were usually preceded by optic illusions, generally of a dog, which he called by name, turned to look at, and then fell down. His mind also became confused and weak, and his limbs deficient in vigour, so that his walk was shuffling. He was also wilful, violent, and unmanageable.

In June 1867, I found him in high spirits, but speaking rather thickly, and the words running together; the right side of the face was slightly paralysed. His memory, on some points, was good. A month later, he was more excitable and wilful, and the mental derangement was more marked, the left arm still weaker, and the gait more shuffling. For some time, his condition was similar in many respects to general paralysis of the insane. He walked feebly; his speech was indistinct; he was in a constant state of exaltation, talkative, extravagant, ordering all sorts of things, which his friends had to countermand, continually writing letters, which had to be intercepted, and liable to rounds of violent excitement, and to occasional epileptiform attacks. He improved, however, went to Aix-la-Chapelle, then to Australia, in 1868-9, returning apparently well, but still not the man he had been formerly. He married, however, and now new troubles began. He was usually impotent, was jealous, easily excited to fits of violent anger, in which he would threaten and even strike his wife, or otherwise inflict pain upon her; at other times, he would be kind and repentant. He was convicted of an indecent assault upon a woman in a railway carriage, and sent to prison, and eventually had to be placed in an asylum.

The most energetic treatment was pursued in the different stages. Iodide of potassium was given in doses, which, at one time, reached a drachm, three times a day. Mercury also was given; and blisters were applied. At times, there was improvement, and he appeared to be all but well; but, as has been seen, the damage to the cerebral grey matter was too great.

I should suppose, in this case, that syphilitic tumours growing from the dura mater, and projecting into the convolutions, constituted the principal cause of the symptoms, though there were, doubtless, other lesions.

CASE V. *Slight Unilateral Convulsion, followed by Temporary Hemiplegia; Bodily and Mental Torpor and Debility; Slow, Hesitating Speech.*

—Andrew N. M., aged 50, a baker, came under my care on April 21st, 1873, after suffering more or less for five years. He was first taken with a sudden trembling fit, and partial loss of power in the right limbs. He was kept in bed for six months by the consequences of this attack, but afterwards

gradually regained almost complete use of the limbs. He had had several attacks of the kind since, all leaving the right arm and leg weak for a time, and he had never been able to work. A fortnight before his admission, he had had, in the course of half an hour, while sitting before the fire, three or four attacks, in which the right hand was contracted; the thumb being drawn into the palm, the head was suddenly drawn to the right and thrown back, and the mouth opened. He made a strange noise also, and his face became quite scarlet. He was unable to walk for a time afterwards, and refused to speak much. While in the hospital, the patient was torpid in his ways, and wet the bed at times. His face was of a deep dusky sallow hue, the hands were habitually purple and cold, and the white spot made by pressure lingered long. He was very slow in answering questions, and no narrative could be got from him, though his answers were usually correct. He was never able to give an account of his illness, and the history given was obtained from his wife. He was apparently a little slow of apprehension, and there was always a prolonged hesitation before he began to speak. He had no voice, only a hoarse whisper, and spoke with evident effort a few words at a time very slowly uttered. He thought his memory was not good. He wrote slowly, and in large hand, but distinctly and correctly, and read the papers with apparent interest. He rose from the sitting posture with difficulty; his gait was clumsy, shuffling, and slow, the right toe being dragged, and both legs having a tendency to keep straight; he was unable to stand on either leg alone. Both hands were weak; there was great difference between them. The pupils were small; nothing abnormal was seen in the optic discs beyond slight hyperæmia. There was nothing in the larynx to account for the state of the voice. He had had syphilis twenty years before, and had numerous pigmented scars on the leg, and a mass of enlarged glands beneath the right angle of the jaw, discharging bloody matter from a small puckered orifice. Five children were said to be healthy, except that one had an eruption round the mouth. There had been a miscarriage in the sixth pregnancy.

Iodide of potassium was given in doses of eight grains, increased to sixteen on April 23rd, and to twenty-four on the 30th, with cod-liver oil and iron. A sharp attack of diarrhoea came on, which made it necessary to suspend the iodide on May 1st. It was resumed on the 7th, in doses of twelve grains, a little opium being also given. On the 10th, the diarrhoea was better, and his general condition had improved; he was brighter, and walked better; answered more readily and rapidly, his voice, however, remaining much the same. He continued to improve rapidly, the difference in his behaviour and ways being much more marked than was evident at my visit. He was inadvertently allowed by the resident medical officer to leave the hospital at his own request on May 16th.

I cannot feel quite sure that the first attack here was not due to the occurrence of thrombosis, and the subsequent symptoms to consecutive changes; but the improvement was more rapid and considerable than would have been likely had this been the case.

CASE VI. *Fits of uncertain character, followed by Left Hemiplegia, and later by Mental Enfeeblement and General Weakness.*—Job G., aged 32, a tailor, married, was admitted into St. Mary's Hospital, December 13th, 1872. He had been steady and temperate; he denied that he had suffered from syphilis, but presented marks of most severe ulcerations, with nodes and general enlargement of both tibiae. Of seven children, five were dead; his wife had miscarried once. Twelve years previously, he had suffered from severe ulceration, which had lasted about four years. Since then, with the exception of discharges from the left ear and deafness, he had remained well till two years before his admission, when he had had a "fit," preceded for six weeks by pain in the top and on the right side of the head. It was described as a sudden loss of power in the left limbs, accompanied by speechlessness but not unconsciousness. He was also violently sick. For a day or two there was difficulty of deglutition, but the paralysis passed off in the course of a week, and he was able to resume work. His speech was said not to have been quite the same since. Afterwards he was liable to attacks of "numbness" without warning, in which he lost all power, but not consciousness; and twenty weeks before his admission he had a seizure, in which he was convulsed, foamed at the mouth, ground the teeth, rolled the eyes, passed his evacuations involuntarily, but, according to his own statement, never lost consciousness. When he came under observation he was childish, and in the hospital behaved very strangely, spent a great part of his time in the water-closet, and wandered aimlessly about the ward, requiring constant watching; at one time he would lie in bed, at others get up in spite of orders, and frequently he wished to go home. The grasp of both hands was weak, the left was more so, and they shook much. His appetite was good; the bowels were open; pulse 106; temperature 98 deg.; urine of specific gravity 1015; no albumen. He slept little. The optic discs were large, well defined, more pink than usual,

but with no appearance of swelling. He was only in the hospital for twelve days, as he insisted on leaving, so that there was no opportunity for effectual treatment. Next day he came asking to be readmitted.

CASE VII. Tertiary Syphilis; Fits; peculiar Mental Condition.—Ed. P., aged 35, married, painter, was under observation in St. Mary's Hospital from May 10th to July 9th, 1873. He had had gonorrhoea, but, according to his own account, no chancre. Large pigmented scars were found on both legs, and the left shin was serrated; he had also the mark of an ulcer in the throat. He had been married eleven years, had had seven children, of whom five had died in infancy, and his wife had once miscarried. He had a fit in June, 1872, beginning with convulsive movements of the tongue, face, and jaw, after which he dropped down insensible; he was unable to work for a week, and had been strange ever since. Eight weeks before his admission, he had another fit while working on a roof, and rolled into the gutter. He said it was simply a fall, and that he struck his head, but his account was altogether confused. He complained of pain in the back of the head, and there was a tender and rather puffy spot near the posterior superior angle of the left parietal bone. The chief symptoms were, however, mental. Every time I saw him, he made a speech about some new suffering. A favourite complaint was loss of power in one or other arm with great pain, but he would perform a movement one moment which he had the moment before said was impossible, and would resist vigorously with the muscles said to be paralysed. One day, when he professed to be utterly powerless, he ran with extraordinary alacrity to restrain another patient. He would often cry because he had to eat his dinner at a table with other patients. When he was asked a question, there was often extraordinary delay in answering; he would stand with his mouth half open, the eyes fixed and gazing on vacancy, and sometimes would stop in this attitude in the middle of a sentence. There was no tremor of the lips, but at times a little stammering, and often movement of the lips, as if he were muttering. The grasp of the hands was good; the walk was rather unsteady, and he said his legs jumped in bed. The optic discs were always found in much the same state in repeated examinations, unusually pink, almost of the colour of the retina, but well defined and with a white spot in the centre; there was no appearance of elevation; the retinal arteries were small; the veins large. Iodide of potassium, given in large doses, and mercurial inunctions, made no impression on the condition.

CASE VIII. Epileptiform Attacks; Slight Hemiplegia; Recovery.—The following is an outline of a case under my observation since May, 1871. In 1861, at the age of 20, the patient had syphilis, sore throat, cutaneous manifestations, and ulceration of tongue; he was subjected to prolonged treatment, into which calomel vapour-baths entered. Five years later, when exhausted by excessive work as a solicitor, he had epileptiform attacks of a severe character. Five or six of these fits occurred within twelve months. He had much pain in the head, and sleeplessness at night. Afterwards, he remained well till February, 1871, when, being again overworked professionally, and working hard on Sundays in Sunday School and other similar work, he began to suffer from pain in the head and back, and he vomited every morning. Soon afterwards, apparently in consequence of exposure to cold and wet, he had, with the usual symptoms of a feverish cold, great pain in the head and violent delirium, the delirium outlasting the pyrexia and persisting altogether a fortnight. He went to the seaside for three weeks, and returned to his business apparently well, but altogether unequal to his usual amount of work. After two or three hours he flagged, began to have headache and to be confused, and was unable to compel his attention. After walking, also, it was noticed that his left foot dragged; and, although this was not obvious when he walked in my presence, the toe of his boot bore witness to the fact by the way it was worn. In the left upper extremity, also, though the grasp was vigorous and he habitually employed it, there were indications of weakness; he found himself instinctively supporting it by holding the coat or waistcoat, and he frequently had an inclination to open and shut it, or to rub the thumb and finger together. There were no optic changes. Dr. Hughlings Jackson saw the case with me, and coincided in the diagnosis and treatment; the latter consisting in the administration of iodide of potassium, in doses beginning at ten grains, increased later to eighteen, twenty-four, and thirty-six grains. The large doses were required, not by any aggravation of the nervous symptoms, but by the return of nocturnal pains in the bones. The slight paralysis soon disappeared, but he remained for some time irritable. Twice since May, 1872, when he appeared to be perfectly well and equal to any amount of work, he has had attacks of headache and fever, with vomiting and other symptoms, and of cerebral congestion, attended also with hyperæmia of the optic discs; but they have subsided under treatment, and at present the patient is well.

CASE IX. Slight Motor Paralysis of Left Side, with Impairment of Sensation in Entire Left Half of Body and Face: Deafness; Loss of Smell

and Taste: Recovery.—In July, 1869, I saw a young medical man, tall, muscular, and well nourished, of somewhat irregular habits, but denying syphilis, who, after excitement and drinking, had become very deaf and had partial paralysis of the left side. The deafness was extreme—as to the left ear absolute—and it was necessary to shout loudly to make him hear on the right side. He said, moreover, that he could neither taste nor smell. The left upper and lower extremities were weak; he dragged the foot, and pressure with the hand was feeble and vacillating; there was slight inequality of the two sides of the face. Sensation also was very decidedly impaired on the left half of the body, and sensory impressions travelled very slowly. The left pupil was smaller than the right. He complained of great pain and tenderness in the left mastoid process and down that side of the neck, and the throat was very sore. He had no sleep at night. The face was expressive of extreme depression, physical and moral. He was kept quiet, took bromide of potassium and a large amount of nutrient fluids; a blister also was applied behind the left ear. The deafness and pain in the mastoid region were relieved, and he slept a little better, but a deep-seated sense of pain came on in the right side of the head, and a few days later severe frontal and orbital neuralgia, with intense congestion of the conjunctiva of the left eye. He had at the same time severe urticaria, which was, no doubt, an expression of nerve disturbance. The hemiplegia remained the same. Large doses of quinine were now given, and with benefit, but no impression was made on the disease until a distinct syphilitic manifestation was discovered, and iodide of potassium was given, when he rapidly recovered.

CASE X. Syphilitic Inflammation of Dura Mater.—Alfred P., aged 31, a shopman, was in St. Mary's Hospital, under my care, from October 2 to November 25, 1872, complaining chiefly of great pain in the head. He had contracted syphilis ten years before; had had slight and transient cutaneous manifestations, and nothing further till within fifteen months. He had begun to suffer from nodes and a tubercular eruption, for which he had been treated by Mr. Lane for nine months, taking iodide of potassium in doses of ten grains, with latterly fifteen or twenty grains of the bromide. For three weeks he had severe nocturnal pains in the head, attended with slight delirium at times. His appetite was bad; bowels confined; no vomiting; pulse 84; temperature 98 degs. I gave him eighteen grains of the iodide three times a day, with carbonate of ammonia and tincture of quinine, and chloral at night. On October 8, he was no better, and chloral in large doses, and morphia injections had failed to give him sleep. The dose of the iodide of potassium was therefore increased to twenty-four grains, and leeches were ordered to each temple, and next night one behind each ear. The leeches applied to the temples afforded relief, not those behind the ears, and on the 13th and 15th others were applied. The iodide was now again raised to thirty-six grains three times a day. On the 17th, he appeared better, had much less headache, and was eating well; complained of thirst. The urine was abundant, specific gravity 1125, no albumen; pulse and temperature normal. Two days later, however, the headache had returned, and he had pains in the limbs; a tubercular eruption also had appeared on the nose and face. I now gave him the one-twelfth of a grain of biniodide of mercury with quinine in the form of a pill twice a day, reducing the dose of iodide of potassium to eighteen grains three times a day. He continued, however, to grow worse, and, in addition to the pain in the head, he complained of soreness in all the limbs; his behaviour was strange, and his mind evidently affected. On the 27th, leeches were again ordered; but the relief given was slight, and erysipelas came on round the punctures. The medicines were consequently suspended, and the erysipelas was treated with local applications. On the 30th, the inflammation had subsided, but the tubercular eruption had increased on the forehead and nose, and appeared on other parts; the headache and bone pains had returned in a severe form; there was a slight loss of power in the left arm, and the mental condition was peculiar. He was perverse and unreasonable, very strange in his temper, and one day at my visit he produced his dinner, which he had concealed for the purpose. I now resumed the administration of the biniodide of mercury and iodide of potassium; the latter in doses of twenty-four grains. He remained in much the same condition for a week, at the end of which time the gums were affected. With this the headache had gone, the mental oppression had cleared off, and in a short time the eruption faded and disappeared. The mercury was discontinued, and the iodide of potassium reduced to sixteen grains. He was discharged, feeling well, on November 25. Since then, he has been under treatment again and again, and twice has required the administration of mercury. While taking the iodide of potassium in large doses—eighteen to twenty-four grains—he kept well; but once I allowed him to leave it off; on two or three occasions he neglected to attend at the hospital; and once it was found that the prescribed amount of iodide was not given. On each occasion a relapse occurred, and the iodide was

not always found sufficient to give relief; but recourse was had to biniodide of mercury, and occasionally a leech was applied.

CASE XI. In November 1872, I saw with Dr. Langmore a patient who was the wife of a man who at the time had severe syphilitic rupia. She had had one miscarriage, and no living children; no syphilitic manifestations. Six months before I saw her, she had had paralysis of the right side of the face, and numbness in the right arm, which recovered in six weeks. She had been complaining of numbness round the mouth and the left arm, and she suffered from intense frontal headaches, which generally came on at three A.M. Sensation was found to be impaired in the left arm, and the grasp was weak. She walked well. Sensation was also deficient over the lower part of the right side of the face, in the area of the distribution of the two lower divisions of the fifth, the anaesthesia transgressing the median line about the mouth. The forehead, the tip of the nose, and the tongue were not affected. The sight was not good, and she was unable to read long; the optic discs were pink, striated by vessels, and the retinal veins were large, but there was no appearance of swelling, and the discs were well defined. The patient was taking iodide of potassium in doses of six grains, and it was agreed that the dose was to be gradually increased to twenty-four grains. This failing, mercury was to be tried. Here the cross paralysis, incomplete anaesthesia in the two lower divisions of the right fifth nerve, and weakness and impaired sensation in the left arm, pointed to a lesion near the apex of the petrous bone, or the adjacent part of the sphenoid, involving the two branches of the trigeminus after their departure from the Gasserian ganglion, and also the crus cerebri. Had the entire fifth nerve been affected, the seat of the disease might have been the pons. The severe pain led me to conclude that the disease had its starting point in the bone or dura mater, and I anticipated difficulty in affording relief. I learn, however, that she improved greatly under the iodide of potassium. She is liable to headaches, but there is now no paralysis.

[To be continued.]

ON THE MEDICAL SERVICES OF THE NAVY AND ARMY FROM THE ACCESSION OF HENRY VIII TO THE RESTORATION.

By WILLIAM R. E. SMART, M.D., C.B.,
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[Continued from p. 200 of last number.]

ALTHOUGH the College of Physicians was endowed with power to license surgeons, it is doubtful that it ever exercised that power in the formation of what would have been a body of general practitioners, such as was ultimately constituted by the union of surgeons and apothecaries. But the College, while disdaining surgery, laid vigorous claim to preside over the faculty of surgeons as an inferior medical body.

Thus we find that, in 1572, the great Dr. Caius, on the part of the College, contended in the Lord Mayor's Court, and obtained a decision, that, "it was illegal and unreasonable for surgeons to give inward remedies even in the treatment of sciatica, the great pox, ulcers and wounds," which was inconsistent with the every-day practices of the state services. In the year 1602, the College followed up this claim by prosecuting a surgeon named Jenkins, for illegal practice, when Judge Popham decided that "there is no sufficient license without the College seal; and that no surgeon, as a surgeon, might practice physick, no not for any disease, though it were the great pox."

It might be thought that this limitation by legal process would have satisfied the physicians, and have kept the surgeons from trespassing on medical practice. If it had the latter effect, it failed in the former, as the College next invaded the surgical field, by obtaining an Order in Council, dated June 13th, 1627, to this effect: "As concerning the surgeons, that none of them in the city of London, or within seven miles thereof, do either dismember, trepan the head, open the chest or belly, or cut for the stone, or do any great operation with his hand on the body of any man, woman, or child, to which they usually are tyed to call their wardens or assistants, but in the presence of a learned physician, one or more of the College of Physicians, or of his Majesty's Physicians." As far as concerns Londoners, this was a complete subjugation of the practice of higher class surgery under the College of Physicians, the corollary of which would have been the bringing back of many of the effete practices of the middle ages, for surgery can flourish only where free to experiment, while the medicine of that age bound its practitioners by the theories and dogmas of the schools.

The only safeguard from being blotted out that remained to surgery, lay in its stronghold of the army and navy, which it possessed almost alone, in which its followers practised, under the protection of the state, medi-

cine as well as surgery, being even provided with the means at the expense of the state; and these men, and those who benefited by them, became the strong assertors of the privileges of surgeons, counter to those of physicians. In the year 1635, "The surgeons suggested to the king, that no doctour would serve in His Majesty's navy, and therefore there was a necessity of their being licensed to practice physick." On this a College was called, when Drs. Hawley, Hamer, Goddard, and Dawson, announced their willingness to do this; but whether their services were availed of or not does not appear. It would seem that neither Lord Mayor's decisions, Bench judgments, nor Orders in Council sufficed to suppress the public demand for the attendance and treatment which surgeons could supply; as, in 1641, the College presented a bill for further protection to the House of Lords, against which the surgeons contended—"That if the surgeons shall be disabled to exercise their profession entirely on land, how shall they be able to practice the same at sea, or breed any for that service, wherein the charge of all, both sick and wounded, are upon them, without physicians or apothecaries:

"That surgeons have ever both practised and appointed physical remedies to the cure of all wounds, ulcers, imposthumes, great pox, fistulas, tumores, and all surgical diseases:

"That the surgeons in all times have served the king and the Commonwealth both by sea and land; and, to that purpose, His Majesty has constantly allowed to each surgeon, *monies for physical remedies for sick and hurt persons*; and now, by the bill, they shall be restrained to use their profession in giving internal remedies.

"That surgeons are dayly employed in voyages at sea, and in the service of merchants, where there hath been used no physician; and if by this Bill, they be restrained from administering physick to the patients here, they will be no way able to perform the trust reposed in them at sea, whereby many of His Majesty's subjects must perish for want of experienced surgeons."

In this we learn that the surgeons rested their claims to general practice on their tried utility in the naval service, which must have told in their favour; but whether that Bill became the law of the land or not, the College still maintained its vantage ground on land; but when the question was reopened, it was by the surgeons seeking to relieve themselves from their disabilities.

In 1689, a Bill was read and committed, having been ordered to be introduced by Sir T. Heathcote, "To enable surgeons to administer inward medicines to wounded persons"; and in 1690, another Bill was presented "For surgeons to administer inward medicines in cases of surgery." These Bills were strongly supported by petitions from the dockyard towns and by the shipowners of London. In reviewing this intestine war among the professors of healing, waged with bitter acrimony by the College of Physicians for the retention of their privileges of the Middle Ages, it is evident, when viewed by modern light, that surgery was weakened and retarded by the pretensions of a powerful and influential body that stood at the head of the profession.

In a paper published at the time, entitled "A short statement of the Case between the Physicians relating to the Surgeons Bill now before Parliament," there is a summary of the claims of surgeons.

1. Liberty to give internal medicines in all chirurgical cases.
2. That they may be consulted with by physicians in all cases whatsoever.
3. That the examination and licensing of all surgeons to practise in the manner aforesaid may be of themselves as sole judges of the sufficiency, etc.

And the reasons on which they rely—

1. That they have formerly had like powers;
2. That these powers are of absolute necessity, to fit them for the king's service.
3. That the physicians have till of late consulted with them in cases where internal medicines were to be administered.

In all this there is the impress of the needs of the army and navy in bringing about a great change in the profession itself. As it has been already shown that, by the same agencies, medicine became gradually freed from the church, and its organisation established; so here its internal reform was ultimately brought about by slow changes.

By studying the history of our profession, together with the graphic statements of Gale and Clowes concerning the medical services of the army and navy in that age, it can be understood how it happened that the company of barber-surgeons acquired paramount influence over these services, although it is rendered clear that the resources of the company were inadequate to the wants of the services, which were compelled to accept the offices of unlicensed practitioners.

There is no evidence that any physician took service in the navy prior to the reign of Elizabeth. William Clowes, in relating (1596) a case of fractured rib followed by pleurisy, in which he excised the