

showed that small funnel-shaped openings (evidently the orifices of glands), corresponded to these dots, from which very fine hairs grew. At some points of the surface whitish patches were seen through the mucous membrane, which resembled in appearance the inspissated or calcified secretion of the Meibomian glands. As the tumour annoyed the patient, not only by its size, but also by causing conjunctival irritation, it was excised, together with a portion of the caruncle of which it formed a part. Under the microscope it was seen to be composed of glandular structure, embedded in a scanty layer of connective tissue.

These cases, contrasted with my own, will assist in future in the establishment of a correct diagnosis.

125 EAST 12TH STREET, N. Y., January, 1875.

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ART. VII.—*Trismus Nascentium*. By PHILIP A. WILHITE, M.D., of Anderson C. H., South Carolina.

MANY years ago Dr. J. Marion Sims, then of Montgomery, Alabama, now of New York, published in the *American Journal of the Medical Sciences* (April, 1846, July, 1848, and October, 1848) three remarkable papers on trismus nascentium, which at the time attracted great attention both at home and abroad. His views in regard to the pathology and treatment of this disease were novel and original; and were sustained by facts and arguments of a most convincing character. Yet they have not been accepted by the profession at large; and the medical men of the present generation are in the main ignorant of his teachings. These papers made a profound impression upon my mind; for I had seen several cases of trismus, all dying, and I was ready to grasp at anything that promised success.

Dr. Sims contended that trismus nascentium was not traumatic tetanus, as had always been supposed, but

“that it is a disease of centric origin, depending upon a mechanical pressure exerted on the medulla oblongata and its nerves; that this pressure is the result, most generally, of an inward displacement of the occipital bone, often very perceptible, but sometimes so slight as to be detected with difficulty; that this displaced condition of the occiput is one of the fixed physiological laws of the parturient state; that when it persists for any length of time after birth it becomes a pathological condition, capable of producing all the symptoms characterizing trismus nascentium, which are instantly relieved, simply by rectifying this abnormal displacement, and thereby removing the pressure from the base of the brain.”—*American Journ. Med. Sciences*, July, 1848, page 59.

Dr. Sims contended that the inward displacement of the occiput, which always existed at birth, was kept up by the dorsal decubitus, whether in the cradle or in the mother's lap; that the symptoms of trismus were the result of this displacement, and that the lateral decubitus was sufficient to relieve the displacement and to cure the disease.

I was completely captivated by a theory so simple and so plausible, and I at once determined to investigate the subject from his stand-point, if an opportunity should ever offer again. I did not have to wait long, for soon after I read Dr. Sims's first paper I was called to my first case.

CASE 1.—It was a male child (white) twelve days old. There was nothing unusual in the labour, and the child was well and hearty till the seventh day, when it began to complain, and for five days it had not been able to draw the breast "to do any good"—and the mother thought it would certainly die of starvation. From having been fat and plump it had in five days become very thin. \*It lay in a cradle on its back most of the time. Its left arm and leg seemed to be paralyzed, and yet they were occasionally affected with spasmodic jerks. It was evidently a case of incipient trismus, or trismoid, as Dr. Sims designates the disease in its mildest form. There were no clonic spasms, and yet there was no doubt as to the character of the disease. I raised the child from the cradle and examined the head, and found the occiput displaced inwardly, the edges of the parietal bones overlapping those of the occipital along the line of the lambdoidal suture.

Having seen cases like this before, in the same stage, all dying, I determined to treat this one according to Dr. Sims's plan. I gave the child no medicine whatever, but I placed it on its side on a pillow, and allowed it to lie there about thirty minutes. I then changed it to the opposite side for thirty minutes more. I omitted to mention that for the five days of its illness it slept but little, and was whining and crying all the time. When I placed it on its side, all these symptoms of distress ceased and it rested quietly. With this hour's experiment of the lateral decubitus, I requested the mother to apply the child to the breast. She did so, and it seized the nipple, and, to the surprise of all present, it sucked with the greatest avidity, and from that moment it was well.

As before said, Dr. Sims describes two forms of the disease, trismus and trismoid, or acute and chronic. And according to my observation this distinction is correct.

The first symptom of trismus is inability to suck. This Dr. Sims says is pathognomonic of the disease. The child loses the power of seizing the nipple; and if the nipple should be forced between the jaws, it has no power of suction. The child seems to be indescribably distressed, moans, whines, cries, is colicky, sometimes has griping passages from the bowels, is restless, uneasy, sleeps badly, has borborygmi, slight spasms of one or both upper extremities, then tonic rigidity of the whole muscular system with clonic spasms, which come on at intervals, and are often excited by the touch or a noise. The expression of countenance is very peculiar, and can never be forgotten when once seen. The acute form terminates fatally in two or three days, sometimes in less time; while the chronic or milder form of the disease may continue for weeks and even for months—the child slowly wasting away to a mere skeleton, and dying of what was formerly called marasmus, which is but another name for gradual starvation.

I believe implicitly in the views expressed by Dr. Sims in regard to the pathology of this disease. It is clearly due to mechanical pressure upon

the brain, expended ultimately upon "the medulla oblongata and its nerves." When I see a certain set of symptoms following a fracture and depression of a piece of the skull in the adult, suddenly relieved by elevating the depressed bone, I cannot help thinking that they bear the relation of cause and effect. And when I have seen in scores of instances certain symptoms characterizing what we designate by the term trismus nascentium, attended with a depressed condition of the occiput, suddenly relieved simply by elevating the depressed bone, I am bound to believe that they bear the relation to each other of cause and effect. The occiput is sometimes so slightly depressed that it is not easy to detect it; again, when the child has lain for a long time on its back in a cradle, we find it depressed to the full thickness of the bone; and again we may find only one edge of it under the parietal bone.

Sometimes a very slight depression will produce all the symptoms of trismus in an aggravated form; again a deeper depression may produce the disease in its milder form. The dorsal decubitus and the cradle together are the great sources of evil. The method of suckling the child with the occiput resting on the mother's arm, is another factor in pushing the occiput inwards. The disease can be as well produced by prolonged lateral decubitus when the child's head has rested upon hard substances, causing an overlapping of the edges of the parietal bones along the sagittal suture. For further information on these points, I must refer the reader to the papers of Dr. Sims previously alluded to.

The prognosis of this disease is always unfavourable when left to the recuperative powers of nature; or when treated on any other principle than that laid down by Dr. Marion Sims and advocated in this paper.

Hundreds of children die annually of this disease, where its real nature is not understood even by the physicians in attendance.

To illustrate the principles of treatment already indicated, I propose to give the histories of a few cases out of the many that have come under my observation in the last twenty-five years. The case (1) already related, and cases 2, 3, and 4, to follow, are given from memory. They occurred when I resided and practised medicine in Franklin County, Georgia; and in moving to South Carolina my note-book was lost.

CASE 2.—Child of Mr. E. W. W., of Carnesville, Georgia, was born in March, 1851. It was a large and healthy child at birth, and remained so up to the third day, when the mother noticed that there was some difficulty about its drawing the breast, and on the evening of the fourth day it lost the power of sucking altogether. On the sixth day I was called to see it. It was lying on its back in a cradle, and had all the symptoms of a well-marked case of trismus. There were a number of old women in the room who had exhausted their specifics on the child, all of whom pronounced the case fatal. I recognized the character of the disease as soon as I saw the child. From the symptoms and the history of the continued dorsal decubitus in the cradle, I fully expected to find a depressed

occiput, and I was not disappointed; for on taking the child up from the cradle I found the edges of the occiput much depressed below those of the parietal bones. I lost no time in placing the child longitudinally on a pillow on the side, with the face turned well to the horizon, so that the weight of the head was sustained on its fronto-parietal portion. After resting in this position for about thirty minutes, I had it applied to the mother's breast, and, strange as it may seem to those who have never witnessed such a thing, the child seized the nipple and sucked vigorously; and from this time there was no return of the disease. It must be remembered that the child had not been able to suck at all for nearly forty-eight hours; and very little for twenty-four hours previously. I gave it no medicine whatever, and this wonderful change from apparent death to comparative health was effected simply by removing the pressure from the base of the brain. The child was kept on one side or the other for three or four days, when it was found that the edges of the occiput overlapped those of the parietal bones.

CASE 3.—A negro child (J. H., of Carnesville, Georgia), born in the summer of 1852. At birth it was a fine healthy child, but when about two weeks old it began to cough, became very thin, and imperfectly nourished. The cough gradually got worse, and a physician was sent for who pronounced it a case of whooping-cough. The child went from bad to worse, the cough became very distressing, and the emaciation extreme. When it was about four weeks old, I was consulted, and found it greatly emaciated, looking old and wrinkled, with a most painful expression of face, and the cough was very constant and troublesome, and might well have been taken for whooping-cough; but the term laryngismus stridulus will better explain it. It also had frequent colicky, griping passages from the bowels. The peculiar physiognomy of the child, with the history of the case, led me to suspect that its disease belonged to the trismoid group described by Dr. Sims. I forgot to mention that the child had paralysis of the left arm and leg. This symptom aided me in the diagnosis. On examination I found the occiput very much depressed, loose, and easily depressed upon the brain. By pressing the already depressed occiput further in upon the brain, the peculiar stridulous cough could be produced at will. This was done over and over again, the violence of the paroxysm depending upon the amount of pressure, and the extent to which the bone was forced in upon the brain. These experiments were continued till the physician (with whom I was called) and all present were satisfied that the depressed occiput was the source of all the evil. I gave directions about the management of the case, with the full assurance that the child would recover if they followed out my prescription of the lateral decubitus instead of the dorsal. I saw the case no more; but I heard a few days ago (Oct. 1874), from the physician in attendance at the time I was called, that the directions I gave were followed, and that the child speedily recovered.

CASE 4.—A male child (son of Mr. U. S., of Franklin Co., Georgia) was born in June, 1852. I was called to see it when it was six weeks old. The mother stated that it was a large healthy child at birth, and seemed to thrive and do well till it was about a week old, when it became colicky, and was uneasy, restless, and crying almost all the time. The mother said that from the time it was first taken it could not suck much, that it could not take hold of the nipple, that "the more she tried to make it suck, the less it would suck." At first she attributed its inability to suck, to the colicky griping pains from which it was scarcely ever free; but she soon

determined that it could not take hold of the nipple at all, and she was then obliged to resort to spoon feedings to keep it alive. In this her efforts were very little better than with the breast. The child was very much emaciated, and had paralysis of the left side, which had been noticed for some time by the mother. It had the irritable whining cry, and the peculiar expression of countenance so characteristic of the trismoid affection, that I at once examined its head, and found the occipital bone very considerably depressed below the level of the parietals.

From the history of the case, and from the present symptoms, I had no doubt that the pressure on the base of the brain was the source of all the trouble. The bones of the head were unusually well ossified, and I thought that an operation would be necessary for the elevation of the occiput from its abnormal position. I explained to the parents the nature of the disease, telling them that death was inevitable if the occipital bone remained as it was; that we would try the lateral decubitus for a day or two, and if there was no improvement, I would operate and elevate the bone. They would not for a moment hear of a surgical operation. I gave directions for the management of the case, and requested them to send for me if they should change their minds about the operation. I saw the child no more, and it died about a week afterwards.

The following cases are reported from notes taken at the time of my visits.

CASE 5.—On the 10th Sept., 1859, I was called to see the male child of Mr. I. L. S., and received the following statement:—

The child was fourteen days old, was strong and healthy at birth, and continued so till the eighth day, when it began to fret and cry, and seemed to be in pain, and was very restless all night. It sucked with difficulty. The next day all these symptoms were worse. It had several greenish passages, but with no relief to any of its sufferings. It went on from bad to worse till I was sent for. It could not suck at all; had great rigidity of the jaws, spasmodic jerking of the right arm and leg; had borborygmi and frequent dejections of a thin, greenish appearance, which were not in the least controlled by astringents and carminatives. It was much reduced in flesh, and had the cry and expression indicative of persistent suffering. The child had been lying on its back in a narrow cradle all the time when not in the mother's arms. I requested the mother to take it up and let me see it suck. It seemed to be hungry, but could not take the nipple in the mouth. On examining the head I found the occiput displaced inwardly to a considerable extent.

The parents and friends were greatly alarmed about the condition of the child, and had for some hours expected it to die. I explained to them that the child's condition was produced by the dorsal decubitus, and the consequent pressure of the occiput on the brain; that it was necessary to relieve this pressure or death would take place very soon. I showed them how to place the child in the lateral decubitus, and directed it to be changed from side to side. Gave no medicine, and as I was much fatigued by a long night's ride, I proposed to go to bed and leave them to carry out my instructions. It was placed laterally on the pillow at 2 A. M. The parents protested against my going to bed without giving the baby some medicine. But I had such faith in the lateral position that I simply said, "do as I told you, and the child will soon be well."

I arose at 7 o'clock, and was greeted with the cheering news that "the

baby has been sleeping soundly, and is now sucking freely for the first time since it was first taken.”

I found it sucking as a healthy child should, and it seemed to be perfectly well. There was no colicky pain, no diarrhoea, and the spasms of the arm and leg had ceased ever since it was laid on the pillow. On examining the head I found that the occiput was not more than half as much depressed as it was at 2 o'clock when first placed on the pillow. From this time the child was well, and that too without a drop of medicine. I saw the child no more till he was able to run about.

The parents were so much afraid of the recurrence of the disease that they kept the child on the pillow for an unnecessarily long time.

CASE 6.—On the 8th July, 1861, Mrs. A. M. A. gave birth to a strong, healthy male child, which continued well till it was about six days old, when it began to show signs of uneasiness and suffering, as manifested by fretting, whining, moaning, and sleeplessness. These symptoms gradually increased in severity in spite of all they could do, until I saw it on the 28th of the month. It was then twenty days old, and had been ill for a fortnight. It was very much emaciated, very small for its age, evidently lighter than it was at birth, and was very feeble. It slept but little; moaned, whined, and cried almost all the time. Countenance sharp and peaked; frequent dejections of a greenish, slimy character. It took but little nourishment, and looked like it might die of exhaustion at any moment.

This child had no spasms, no rigidity of the limbs, no stiffness of the muscles of the jaws, and no inability to suck—all of which characterize true trismus nascentium, and yet I felt satisfied that all its other symptoms could only be explained by reference to the active cause of trismoid. The child had been kept constantly in a narrow cradle on its back. This prolonged decubitus, and the fact that it was well and strong up to the usual time for the development of trismus, and that it had a group of symptoms incident to that disease, led me to examine the condition of the occiput. I found it slightly depressed. The depression would not have been recognized by a careless observer, or one unaccustomed to investigate such cases. And yet I was satisfied that this depression of the occiput was the origin of all the trouble. I had the child placed lengthwise on a pillow, flat on its side, and I directed the nurse to change it from side to side, but not to place it any more on the back. To allay the anxiety of the mother, I ordered an infusion of assafoetida to be given occasionally.

July 29. Child rested much better, and slept more during the night than at any time since it was taken ill. Ordered perseverance in lateral decubitus. No medicine.

30th. Much improved. Slept still better. Takes more nourishment. Cries much stronger. Occiput gradually regaining its normal position exterior to the edges of parietal bones. Continue lateral position. No medicine.

31st. Improvement very marked. Bowels moved less frequently. Dejections more natural.

August 1. Slept very well. Bowels better. No whining, but cries strongly when it cries at all. Occiput nearly normal.

From this time on convalesced gradually, and soon got perfectly well, without any other treatment than that of position. It took only two or three doses of assafoetida, on the day of my first visit, no medicine afterwards. Before I saw it, it had been dosed liberally with astringents, carminatives, and anodynes, without the least improvement.

CASES 7, 8, and 9.—On the 9th March, 1863, at 4 o'clock A. M., Mrs. W. R. gave birth to triplets, two girls and a boy, fine, hearty, plump children, the three weighing  $19\frac{3}{4}$  pounds. There was nothing unusual in the labour, and the children were physically beautiful. But as they had not expected so many at once, sufficient provision had not been made for their accommodation; they were all laid or rather packed into a small crib, only large enough for one child. They were laid side by side on their backs, face upwards all the time, except when they were taken up to be suckled. They seemed to be as hearty and vigorous as children of their age could be up to 4 o'clock A. M., March 12th, precisely three days after birth, when the first indication was given that anything was wrong. Mrs. R. said that about 2 o'clock in the morning of the 12th, when she went to suckle the children, one of the girls could not take the nipple nor suck, and the more she tried to make it suck the worse it got, and she soon discovered that its jaws were stiff, and that it could not swallow, for when she poured a little milk into its mouth, it would run out at the nose; that it was whining and crying all the time, and its head constantly rolling from side to side, "that its eyeballs and lids were in constant spasms, the balls rolling and jerking, and the lids snapping and squinting." And she described it as having tonic rigidity with clonic spasms. All these symptoms grew worse. The child was never able to suck or swallow again, and it died at 4 P. M., about twelve hours after the disease was fully developed. Between 12 and 2 o'clock P. M. the other two children were taken in the same way, and with the same set of symptoms as the first. The whining cry, the nystagmus bulbi, the squinting, the inability to suck, the locked jaws, the spasms of face and extremities, were alike in all three, and the little boy died at 8 P. M., being from six to eight hours from the advent of the disease. The friends watched with the remaining child all night, expecting every moment to see it pass away as the others had.

On the morning of the 13th it so happened that I was passing the house to make a visit in the neighbourhood; and not having heard anything from Mrs. R. and the babies since I left them on the 9th, I called to inquire after them. On entering the house I was greatly surprised to see a coffin and a gathering of the neighbours, for I expected to be sent for if any emergency should arise to make a visit necessary. I was informed of the facts already detailed, and was told that the third child would soon be dead, as it had been dying all night, and that they were only waiting for it to die so that they could bury it in the same coffin with the others. From the history of the symptoms detailed I recognized the fact that all three of the children had trismus in the acute and violent form, and I at once asked to see the one that was yet alive. I found the child lying on its back in the crib, and in the last stage of the terrible disease that had so suddenly taken off the other two. It was so weak that it could scarcely cry, had no perceptible pulse, and like all present, I really thought every breath would be its last. I took it up from the crib to examine its head, and found the occiput depressed to an incredible extent.

Notwithstanding the fact that the child seemed almost moribund, I stated to the parents and friends that I wished to try the experiment of the lateral decubitus. They at first objected to my doing anything at all, saying the child must die as the others had, and that it would soon be out of its misery. Mrs. R. said it had not been able to swallow for the last fifteen hours, and what was the use worrying a dying child. However I carried my point, and had the child laid lengthwise on a soft pillow on its side,

and turned from side to side every fifteen minutes. From the moment it was laid on the side, a decided change was seen in all its symptoms, and in less than one hour and a half from the time the lateral decubitus was instituted, all spasm ceased, the jaws were unlocked, and the child sucked freely, and swallowed well. I gave it no medicine, but simply directed that lateral position should be kept up for some time, being careful to change it from side to side every hour or so.

Before leaving, I examined the heads of the dead children, and found the occiput in each depressed to an unusual degree, leaving no doubt in my mind that they might have been saved by the proper lateral decubitus if it had been tried in time.

I requested the parents to send for me if my little patient did not progress favourably. It rapidly recovered, and I saw it no more till it was eight months old, and there was not a finer child in the country of its age.

Mrs. R. informed me a few days ago (since I began this article), that the children were taken sick as they were born, that is, the first child born was the first taken, the second was the next, and these were the two that died.

CASE 10.—In March, 1868, C. McL. brought his child (female) to my office for advice. It was hearty at birth, but when about ten days old it began to complain; became restless and sleepless, and whined and cried almost all the time; was colicky, and had frequent passages, which were sometimes greenish, and again thin and watery. It was now two months old, and was pale, puny, and greatly emaciated; was restless, and seemed to be in constant distress, as manifested by involuntary movements and the peculiar expression that belongs to trismoid cases. It slept only when under the influence of anodynes, and then for but a short time. It had never had spasms; it had always sucked with difficulty, though they noticed no stiffness or locking of the jaws. It was all the time licking out its tongue as if it were hungry. Recognizing the character of the disease, I examined the head, and found the occiput clearly displaced inwardly under the parietal bones. The bones of the head were well ossified, and the edges of the occiput seemed to be impacted under those of the parietals. I stated to the father that medicine could do his child no good; that this was a case of trismoid affection, due to the pressure exerted by the displaced bone upon the base of the brain; and that it was necessary to elevate the bone. I gave him directions about the lateral decubitus on a pillow, and requested him to bring the child to me again in two or three days if it should be no better. In a week he returned, saying he had carried out my instructions, but the child was no better, on the contrary worse; for it was weaker, and, if possible, more emaciated. I then explained to the father that the only hope of relieving the child was to perform a slight operation on the head, for the purpose of elevating the occiput from its depressed condition. But he would not hear of such a procedure, and returned home with the child, and it died about a week afterwards.

CASE 11.—In June, 1870, Mrs. A. McL. rode to my office on horseback, a distance of ten miles, with her infant in her arms, exposed all the way to the sun's rays. The child (female) was six weeks old. The mother stated that it was well and hearty at birth, but in a few days after it began to complain; that it moaned and cried all the time; was restless, and slept only when taking cordials and anodynes; that it had constant trouble with its bowels; that it was colicky, and had frequent dejections



which were sometimes green, and again clay-coloured. It had not had spasms nor stiffness of the jaws. It was pale, sickly-looking, and extremely emaciated, and had the peculiar distressed trismoid expression. The usual routine of anodynes and astringents had been exhausted in this case, without the least benefit. It resembled in every particular the case (10) just described. The two cases were children of two brothers. On examining the head, I found the occiput displaced inwardly to a marked extent. The edge of the occiput on the left side was closely impacted under the corresponding edge of the parietal bone; the right was not pushed in so far, but appeared to be firmly held in its abnormal position. My opinion was soon made up that the displaced occiput was the sole cause of all the trouble, and that the ten-mile horseback ride, with the occiput resting all the time on the mother's arm, or on her knee, had greatly aggravated all its symptoms. I explained to the parents the philosophy of the lateral decubitus; gave them a pillow, and showed them how to lay and carry the child on it, and explained that I believed it would be necessary to perform an operation to elevate the depressed bone. I told them to send for me, if their ride home did not kill the child, and I would go and operate on the bones of the head, and try to rectify the position of the displaced occiput. They did not send for me, and the child died about ten days after I saw it.

CASE 12.—On the 20th October, 1870, Mrs. A. F. D. gave birth to a female child. It was large and healthy. Its head was large, round, and symmetrical. It did well for the first twenty-four hours, after which it began to be restless, sleepless, and fretful all the time, making a distressing moaning, with occasionally a peculiar sort of unpleasant breathing. It breathed as if it had taken a severe cold. It had great difficulty in taking the nipple and sucking. The nurse was very faithful, and anxious about the child, and seldom laid it in the cradle, but held it on her lap most of the time on its back. The moaning and restlessness were attributed to colic, and she gave it repeated doses of paregoric and catnip tea, but with no benefit. These symptoms gradually grew worse; the difficulty of seizing the nipple and sucking was very great; the moaning, crying, and colic were constant, and it seemed to be in great pain. Thus it went on from bad to worse, till 11 o'clock P. M. on the seventh day, when it suddenly gave a loud scream, and went into convulsions. They gave it a warm bath, but the clonic spasms followed each other in rapid succession all night, and until I saw it at 10 A. M. the next morning (eighth day). When I arrived, it appeared to be in a hopeless condition. Power of nursing gone, tonic rigidity extreme, clonic spasms in rapid succession, and it seemed that each spasm would end its life. It was almost moribund, and was lying in the nurse's lap face upwards.

Seeing at a glance that I had an aggravated case of trismus to deal with, I lost no time in examining the condition of the head, and found the occipital bone pushed deeply in on the brain. I immediately took it from the nurse's lap, and placed it on a soft pillow, lengthwise on the side, at the same time manipulating the parietal bones, so as to modify the position of the displaced occiput. It never had a clonic spasm after it was placed on the pillow, and in a very short time the tonic rigidity had all disappeared, and in one hour it took the breast and sucked freely; gave no medicine; left directions for a continuance of the lateral decubitus; 8 P. M. found the child well; next day child perfectly well, without a drop of medicine of any kind; occiput in its normal position.

*December 5, 1874.* I saw the little girl to-day, and there is not a finer child of her age in the county. I read the above history to the mother, and her recollection of the case corresponds exactly with my notes of it.

This article has been extended to a greater length than I anticipated; yet I feel unwilling to bring it to a close without reporting two more cases of trismoid, which were very similar, and are interesting by contrast of treatment and result.

**CASE 13.**—September 21st, 1873, when casually passing a neighbour's house, I was hailed, and requested to stop for a moment, when two ladies came out to the road, one carrying an infant in her arms. On getting near me, one of them said: "Well, doctor, we stopped you to inquire if you could tell us what is the matter with this baby." I replied: "In the absence of the history of the case, and judging only from its age and the peculiar expression of countenance, I should think it was suffering from what doctors call trismus, or lockjaw." For it had that peculiar trismal countenance so characteristic of the disease, and which I am unable to describe, but which once seen cannot soon be forgotten. I examined the child's head as I sat in my buggy, and found the occiput depressed to a considerable extent below the level of the parietal bones, one edge more than the other, and apparently closely jammed there. I explained briefly the nature of the disease, and as I was in a hurry to make a professional call further on, I promised to stop in on my return, and inquire more particularly into the child's case.

On my return I learned the child, a female, was born on the 19th July, 1873; that it was now two months old; that its mother, Mrs. O. H. K., died when it was seven days old; that it was a fine hearty child at birth, thrived, and was quite well till it was about three weeks old, when it first became restless, fretful, cried a great deal, and slept but little. It soon had diarrhœa, the movements very frequent, sometimes greenish and at others thin and watery. It had never refused to suck, but ever since it began to complain, it sucked with difficulty. It had never had spasms or rigidity of the muscles. These symptoms gradually grew worse up to the time I saw it (September 21st). It had been treated by three of the best physicians in the county without any benefit. It was thin, and emaciated to a great degree. Its dejections were frequent, no medicine seemed to have any control over them. It whined and cried and moaned almost all the time, and it slept but little. I explained to the ladies and the father that I thought the depression of the occiput was the sole cause of the disease, and that I thought it might possibly be necessary to perform an operation to place the bone in its proper position. I was obliged to leave, but I requested Mr. K. to go for his physician, and tell him what I said about the case. He went to see my friend, the doctor, and laid the subject before him. The doctor advised him to go home and let the child alone, as he did not believe in any operative procedures in such cases. Nothing more was done, and the child gradually sank, and died about two weeks after I saw it.

**CASE 14.**—On the 16th October, 1873, I was called to see the child of Mr. C. M. On entering the house I discovered the object of my visit lying in a small narrow cradle on its back. It was emaciated to an extreme degree; crying, whining, and moaning incessantly, and rolling its head continually from side to side. It had the peculiar characteristic trismal

face. The history, symptoms, and appearance of the child will be seen to be the same as those in the case (13) previously related. Before making any examination of the case I said to the aunt: "I think we have here a case of trismus;" and I then explained the nature of the disease, and told her that it depended upon a displacement of a bone on the back of the head. Her reply was: "Yes, we have all noticed a sunken place in the back of the head for several weeks." On examination my suspicions were verified. I found the occiput inwardly displaced to a very considerable extent, pressing deeply upon the brain and firmly held in its abnormal position. I learned that the movements of the bowels were frequent and persistent, that it slept but little, that it cried, moaned, and whined all the time, day and night. As I was satisfied that it was a case of trismoid affection, I took it out of the cradle and laid it properly on its side on a pillow; and the aunt, who had been its only nurse from its birth, gave me the following history. The child, a male, born August 6, 1873, was large and healthy; labour normal. The mother died six days after its birth. The child did well and was perfectly healthy till three weeks old, when it became restless, uneasy, fretful, and cried a good deal. It had lain in the cradle most of the time flat on its back. It was supposed to have the colic, and catnip tea and anodynes were given liberally, but without benefit. The bowels were greatly deranged; the dejections frequent, greenish, and offensive. These symptoms increased in gravity, and the family physician was called in, who prescribed various anodynes and astringent remedies to relieve the pain and check the bowels, but only with temporary effect. A second physician was called in, but with no better result. The patient continued to grow worse, notwithstanding, all the skill of the two accomplished physicians who had seen the case. I was called on the 6th of October. The child was then just two months old, and had been gradually growing worse ever since it was three weeks old. I have never seen an infant so emaciated, being literally a skeleton. It had been sick just five weeks, and, as it was pronounced to be incurable, no physician had seen it for a week, but its aunt had regularly given the anodynes and astringent remedies that had been prescribed for it. I explained to the aunt the nature of the disease, and the treatment, and the necessity of persevering with position for a day or two. I told her that the case was not hopeless, that if the bones of the head did not soon show some signs of rectification, I would puncture the scalp and raise the depressed bone up to its proper place. As previously stated, the child was placed properly on a pillow on its side, and I directed the aunt to turn it from side to side until I should return, which would be in about three days. By that time, I felt confident that the child would be better if position alone could effect the change. If I should find it no better, I proposed to operate and elevate the occiput from its abnormal position. I stated that it was useless to give it any medicine; but that they might give it one grain of chloral hydrate at night to procure a little sleep, and that I thought there was no hope of its getting better until the occiput was raised and the brain relieved of its pressure. The aunt was a very intelligent woman, and followed my directions as to the lateral decubitus literally, although she had but little faith in its doing the good I promised. For the first two days and nights there was no change whatever, but on the third night the great restlessness subsided in some degree, and the child slept several hours for the first time since it was taken, and convalescence set in. I saw the child a few days afterwards; the diarrhoea had ceased entirely, it lay quietly, no fretting, no crying, and

it slept soundly, and took nourishment well. On examining the head I found the occiput occupying very nearly its proper relative position, and the child was well without taking any medicine except two doses of chloral, one grain each on the first and second nights after my visit. But I have no idea that this exerted the remotest influence on the result, for there was no marked improvement till the third night, when the prolonged and persistent lateral decubitus began to produce its effects on the relative position of the occipital and parietal bones. The child is now a sprightly little fellow, and when thirteen months old weighed twenty-five pounds.

The similarity in these two last cases is very marked. Each lost its mother in a week after birth. Each was taken on the 21st day. Each had a similar train of symptoms. Each was reduced to the lowest state of emaciation. Each had the same degree of depression of the occiput, and the same degree of immobility or impaction. I saw each one at about the same stage of the disease. One had no postural treatment, and died a week after my visit; the other had the proper postural treatment, intelligently carried out, and in three days it was wholly cured.

This completes the number of cases that I shall bring forward on the present occasion. I have seen many more, but these will suffice for all practical purposes. There is such a similarity in all of them, their symptoms are so uniform and unvarying, that the repetition of cases becomes monotonous, and I feel that I have already overtaxed the patience of the reader.

I have not classified my cases, dividing them into acute and chronic, or trismus and trismoid, as was properly suggested by Dr. Sims; but I have given them in chronological order from 1851 to 1873.

In looking over these cases I find three (5, 10, 12) of acute trismus promptly cured by position alone. Two (7, 8) died without treatment before I saw them. Of the nine cases of trismoid affection, five (1, 2, 3, 6, 14) were cured by position alone; and four (4, 10, 11, 13) died without treatment. The two acute cases of trismus that died without treatment would assuredly have been saved, just as their sister was (case of triplets), if the only and proper method of treatment (position) had been adopted. It is impossible to say what would have been the result of postural treatment intelligently carried out in the four trismoid cases that died.

Taken all in all, these cases seem to me to justify the conclusion that trismus nascentium is the result of mechanical causes; the predisposing cause being protracted or tedious labour, and a too well ossified state of the foetal cranial bones. The exciting cause is undue pressure on these bones, more especially the occipital; while the immediate cause is undue compression of the medulla oblongata, and the nerves originating from it. The cases so far given are all of one general character, and all go to show that the disease is the result of pressure exerted at the base of the brain. In all of them the pressure was produced by an inward depression of the

occiput, differing, however, in degree from the slightest to the greatest possible.

I may, at some future time, resume the subject, and detail some cases of this disease from pressure on the brain by parietal displacement.

As Dr. J. Marion Sims was the first to give us a correct and rational view of the pathology and treatment of trismus nascentium, I must refer the reader to his interesting and graphic articles on the subject already alluded to. The profession at large have not accepted his teachings on this subject. This is another illustration of the hackneyed phrase that truth travels slowly; but the time will arrive, sooner or later, when the great truths that he announced to the world so long ago will be accepted and acted upon by all in the profession who will observe and reason for themselves.

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ART. VIII.—*The Injection of the Bladder.* By E. L. KEYES, M.D., of New York, Professor of Dermatology in the Bellevue Hospital Medical College, one of the Surgeons to the Venereal Division Charity Hospital, etc. (With a wood-cut.)

THOSE members of our profession who, in modern days, have been brought into contact with many and varied forms of bladder disease, have pretty generally come to incorporate injection into the bladder, in one of its many forms, into their treatment of chronic cystitis.

A given practitioner may have this or that substance which he injects in solution and to the action of which he attributes all the benefit derived, as silicate of soda, lead water, solutions of zinc, chlorate of potash, carbolic acid, permanganate of potash, borax, etc. etc., perhaps nitrate of silver; or possibly he may vaunt a special method of topical treatment as being endowed with peculiar virtue; such as double current catheters of one pattern or another, drainage, instruments *à demeure* with occasional injection, irrigation, etc.: some of which methods call for admiration of the patient tolerance of the bladder, and its willingness to get well, sometimes, in spite of obstacles, provided only it be kept reasonably clean.

Now this modern tendency toward relying upon topical measures in treating chronic maladies of the bladder (often to the exclusion of the older-fashioned administration of the preparations of buchu, pareira brava, uva ursi, triticum repens, etc.) clearly indicates that experience has proved the value of the former measures; and the fact that many different substances in solution, and many different methods of getting urine out of the bladder and some fluid into it, are alike claimed as the chief agent in producing the good result—this fact shows there must be some one action,