

with aseptic cotton, and the growth which was much larger than it had appeared in the mirror, cut away with curved scissors. The basis of the tumor was thoroughly curetted with a sharp spoon; touched with Paquelin cautery, and the site of the wound packed with antiseptic cotton. No ligature was put into the cartilage; it was allowed to close by its own resiliency. The whole operation including the tracheotomy occupied about an hour. Patient rallied promptly. Seven hours after the operation, temp. 100, resp. 34. Next morning a longer tube was introduced, the tampon removed, the wings of the thyroid drawn asunder, and the whole larynx carefully examined. The wound was perfectly dry, and it was discovered that the glands under the os hyoides were infiltrated, and that the thyroid cartilage itself was at several points perforated by the growth. It was then decided to do a partial resection on the next day, if the patient's condition warranted it. Next morning temp. 102.5, resp. 40. Patient took a large quantity of bouillon and egg-nogg during the day. Deglutition was quite as good as before the operation. During the night of May 1, the tracheal tube became displaced, and before the attendant could reintroduce it, great emphysema of the neck and thorax developed. Symptoms of putrid pneumonia made their appearance on this day. Patient died May 5, 11 A.M.

*Case 3. Bilateral Paralysis of the Abductors and Adductors of the Vocal Cords.*—Man, æt. 53, applied at Policlinic May 15; has had cough with abundant expectoration for more than a year; was told in December last by his physician that he was consumptive and advised to go to sea. Made a sea voyage to Australia and returned to San Francisco in March with less cough, but had been losing weight all the time. Hoarseness and stridor first noticed whilst on ship board. Patient a small thin man, with remarkable emaciation of face; has decided cadaveric expression of countenance. Respiration very loud; voice a hoarse whisper, broken at every third or fourth word by a deep gasp for breath. The laryngoscope revealed the vocal cords fixed near the median line of the glottis. The fixation was absolute and neither phonation nor forced respiration altered in the slightest perceptible degree the shape of the glottis. The structures of the larynx appeared normal in color and contour. There are small cavities in both lungs; sputum rich in bacilli. The most careful examination failed to detect any source of nerve pressure upon either side of the neck, or in the mediastinum. Patient has been advised of his danger and told that tracheotomy may become necessary at any moment.

*4. Unilateral Paralysis of Larynx.*—Man, æt. 43, appeared at Policlinic April 23, states that whilst at dinner three days ago he was seized

with a fit of coughing, during which a piece of meat he had in his mouth was drawn down into his throat. The meat stuck there and for a few moments resisted all efforts to dislodge it, when, fearing that he was about to suffocate, he seized a table knife, and, using the handle as a probang, managed to push the obstacle further down his throat. Breathing at once became easy, but the voice was hoarse, and he found it difficult to swallow even a mouthful of water. Inspection of the larynx showed the left cord fixed in the cadaveric position; otherwise nothing abnormal. The man was given a glass of water and told to swallow it; after several ineffectual attempts he managed to get a portion down, but immediately after it was regurgitated through the mouth and nose. The œsophageal sound was now introduced, which discovered an obstruction just below the level of the cricoid cartilage, and an attempt to force the obstacle brought on a violent fit of coughing during which the lump of meat was expelled. It measured nearly one and one-quarter inches in its largest diameter, and was covered with thick yellow mucus. From this moment the paralysis commenced to disappear, and five days afterwards the action of the cord was almost normal. The man, however, still complains of a decided feeling of constriction at the former site of the obstruction.

## TRISMUS NASCENTIUM.

*Read by Title in the Section of the Diseases of Children, at the Fortieth Annual Meeting of the American Medical Association, June, 1889.*

BY U. V. WILLIAMS, A.M., M.D.,  
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In exploring this field we must realize that we are more in the region of conjecture than fact, more in the domain of fancy than reality. The exciting cause must of necessity be obscure in a condition that obtains in the newborn during a period of from four to six hours to as many days, and appears without warning. Life in its beginning, like its end, is very feeble, and the slightest disturbing influence may endanger the one, or hasten the other.

The various causes laid down by the authorities on tetanus in the newly born are unsatisfactory, and every one is subject to negation; most notably they are injury to the cord and pressure upon the medulla oblongata. Is it traumatic? The wound of the umbilical cord does not seem to be sufficient; probably not in one case in ten thousand births is it found to exist. All have the cord ligated, then circulation ceases, if not before; no nerves have ever been traced into, or from the cord.

In the lower animals the cord is ruthlessly torn asunder. If the disease were caused from such traumatism, its frequency would be observable in

them, more than in the infant which has been treated with greater care; still in them it does not exist at all. In the birth act, the same, or like pressure is made upon every medulla, varied only by the relative diameters of the pelvis and head and the force exercised to push or, in case of forceps deliveries, to pull the head through the bony strait, and whether the delivery is tedious or quick, natural or artificial, the disease is just the same, exceptional, and when it does occur alike inexplicable.

I have notes of thirteen cases occurring in my own and my friends' practice. In each no assignable cause is maintainable. Two cases were forceps deliveries. Four of the remaining eleven were tedious, the others natural, and all at full time. In six cases one or both parents were consumptive. In four one or both parents were addicted to alcoholic excesses, and in three there was suspicion of syphilis. Now my critic might say how many hundreds of cases were alike predisposed, and no case of trismus occurred. I say also, hundreds of cords are tied and medullæ pressed and no case occurs. True, but does not the coincidence of all having a predisposition affect the possibility that the cause may be found in a defective organization intensified by the birth act, and called into prominent existence when the creature was beginning to have a separate life, in no wise dependent upon the maternal influences. Inherited resemblances do certainly exist, mental characteristics may certainly be transmitted; equally so do the tendencies to health or disease obtain by transmission from parent to child. This we accept because the fact is patent, and every day observable, but how it is done we know not, except from that axiomatic Divine fiat "that every creature and plant shall bring forth after his seed, and of like kind." We do not know why an oak does not come of a chestnut, we only know it is impossible that it should. Equally so a perfectly developed child cannot spring from a diseased parentage, and this tendency we call predisposition. In the newborn, oxygenation of the blood is very imperfect. At the beginning the lungs act but feebly, not at all before birth. The pressure of the powerfully contracting uterus does to a considerable extent impair the maternal supply of oxygen transmitted from the placenta through the cord—obtunding the nervous influence of the child *in utero*. Such a condition is possible; if accepted, its probability is beyond dispute; thus impure blood charged with carbonic products will act upon the brain of the infant, as the adult, and cause like results—trismus and convulsions. Again, the kidneys may be the cause. Interstitial nephritis may exist, and does doubtless at birth, the blood may be charged with uric products during the first hours or days of life and poisoning ensue, causing the disease to early manifest itself. In the adult state, such does oc-

cur, especially is puerperal eclampsia attributed to such condition in part. It is asserted by physicians who practiced in the South *ante bellum* that a very commonly attributed cause of trismus among the negroes, among whose young the disease was very much more frequent than among the whites, was the inhalation of green wood smoke and the pyroligneous acid and other products of combustion. In every cabin there was a rude fireplace in which green wood was used for fuel. Ventilation was poor and the rooms were overcrowded; furthermore, the disease was oftener seen in winter than in summer. The acid products of the smoke inhaled were transmitted through the blood to the sensitive brain, there its toxic influence was the exciting cause of tetanus and convulsions.

So obscure a disease, with so many factors of causation and with so little possibility of a satisfactory solution, must of necessity remain obscure. These possible causes are offered as suggestive, more than as facts needing no further demonstration, and are designed to call especial attention to the possibility that others may determine the influence of predisposition to consumption and syphilis as being the most prolific causes. A predisposition determines *what* a disease may be; but an exciting cause determines *when* it shall be. A predisposition to consumption is inherited, depreciates the chances of long life and operates at birth, as well as in advanced life; the same is true of syphilis and alcohol, and when the vital powers are so feeble as at birth, so much more will such influences disturb the functions of life. "The blood is the life," and any abnormal condition in that fluid from consumption, alcoholism or syphilis must be reflected upon the nerve centres and retard the activity of the brain, lessen nervous energy, and act idiosyncratically, thereby being the promoting cause of trismus. While these views may be unsupported by a formidable array of statistics or undemonstrated by autopsies, they are the result of thirty years of constant attention to the details of a busy practice, and I hope it may call the attention of thinkers to a class of cases but little understood, and to which very little attention has heretofore been paid.

## THE USE OF THE GALVANIC CURRENT AS A LAXATIVE.

BY JOHN V. SHOEMAKER, A.M., M.D.,  
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Brillat Savarin well remarks, among the aphorisms with which he prefaces his "Physiologie du Gout," that the discovery of a new dish contributes more to the happiness of mankind than does the discovery of a new star. The physician may add that all such discovery is in vain in the pursuit and sum of human happiness un-