

specific gravity of 1020, and with the nitric acid gravity test yielded no cloud, or one so faint that I could not be sure that it existed, and noted, "believed to have a trace of albumen." According to her estimate, she was passing two and one-quarter pints a day.

April 3d. She passed three and a half pints, having a specific gravity of 1010, and totally free from albumen.

21st. Urine three pints, specific gravity 1015; no albumen.

The symptom of increased arterial pressure and cardiac hypertrophy, upon the diagnostic value of which stress has been laid, afforded in the group of cases here narrated no aid. The patients were all large, stout, middle-aged, married women, with full busts, making the recognition of a slight degree of hypertrophy exceedingly difficult, and the circulation in the two more serious cases was certainly enfeebled.

The practical conclusion to be drawn from these cases is that reliance cannot be placed upon a single examination of the urine, but that in any doubtful case of chronic disease it is our duty to examine the renal secretion repeatedly, noting whether albumen appears after a heavy meal of flesh, and whether the urine of abstinence is of abnormally low specific gravity. I have seen patients who certainly did not have Bright's disease, but in whom an irritant drug or an alcoholic excess would produce albuminuria. It is to my mind very probable that such people will eventually develop renal disease. At any rate these cases have suggested to me that possibly as we employ purgatives to make a so-called therapeutic test in a case of suspected typhoid fever so we might use cantharides, turpentine, or other irritant drug in a case of suspected Bright's disease. If on trial it should be found that a slight irritation would seriously affect the urine, the case should be looked upon with the greatest suspicion.

CONGENITAL PHYMOSIS AND ITS CONSEQUENCES.

BY HORACE G. WETHERILL, OF TRENTON, N. J.

CONGENITAL phymosis is a malformation not uncommon in male children otherwise perfectly formed, and is too frequently regarded as unimportant, and neglected because, as sometimes happens, it gives no immediate inconvenience; yet it is often accompanied or followed by diseases, general and local, for which it, and it alone, is entirely responsible, and which are not infrequently very serious in their consequences.

That this condition is not discovered till some malady is established, that its pernicious influence is not properly appreciated, and that means to correct it are not adopted, or are postponed too long, are evident facts, and it is to this neglect or procrastination on the part of the parents or family physician that many distressing cases of chronic vesical or renal trouble are due, and from which many otherwise healthy nervous systems are directly or indirectly ruined, to the end of destroying the com-

fort of the individual and his family, and sometimes making it necessary that he should spend the remainder of his life in an asylum.

My object in preparing this paper is to renew the interest of those who may meet with it in this apparently trivial matter, and more especially to call attention to some of the nervous conditions induced by it; but to show it a subject worthy the attention I give it, and the importance I attach to it, it will not be amiss to call up some of the severe local diseases to which we know it may give rise, and which are not infrequently forerunners of the disturbance of the nerve centres, which is more properly my theme.

Sometimes this elongation of the prepuce and contraction of its mucous lining is so marked at birth that it nearly or quite prevents a free evacuation of the bladder; the urine, passing freely through the urethra, is obstructed by this contraction, accumulates about the glans penis, and, as I have seen in one or two instances, distends the elongated foreskin to the size of a walnut, which distension is only relieved by this accumulation dribbling away or by its being slowly and painfully ejaculated by powerful and spasmodic contractions of the bladder and abdominal walls. The child affected in this way is often wet, and will almost always cry out with pain when urinating, for aside from the difficulty of evacuation the mucous lining and glans become inflamed and excoriated very soon, and if the prepuce is not already tightly constricted it soon becomes so, and increases the difficulty.

The effects of an obstruction of this kind are evident to every physician, for it is quite as potent in causing inflammatory action in the deeper urinary tracts as a urethral stricture could be, and urethritis, prostatitis, cystitis, and sacculated bladder directly result, and it may even extend beyond the urethra and establish in the kidneys themselves chronic and incurable progressive disease.

This is a serious train of secondaries, and should alarm all to an extent that none of these cases should escape observation and correction; but when we know the bad habits and line of dangerous nervous diseases which are directly or indirectly traceable to this trivial cause, and which could be so easily averted, it becomes even more important that it should not be overlooked.

As a sort of text from which to make deductions it will not be amiss to relate a few points from a case which I have had for some time under observation, which illustrates very well the local and general trouble which a congenital phymosis may set up.

The boy was received into the asylum on October 25, 1882, was removed by his father on March 16, 1883, and readmitted on May 13, 1884, being now under my care. He is aged thirteen years, said to have been deranged nearly five years, and has had epileptic attacks since he was six years old, and is believed to have had no injury or accident which could in any way account for his condition. He has always "wet himself," and cried with pain when urinating. He has not slept well, of course, and has now frequent short epileptic attacks. On examination, he was found to have a tightly contracted prepuce,

which obstructed the free passage of the urine; firm adhesions were present between the glans and foreskin, and the meatus was inflamed and gummed together with a viscid mucus.

On June 21, 1884, he was etherized, the adhesions broken up, and the elongated prepuce amputated and retracted. A large accumulation of hardened and stinking smegma was found lodged back of the corona glandis, and the whole mucous membrane had an inflamed and irritated look. His urine on examination was found to be turbid and ammoniacal, and evidently issued from a chronically inflamed bladder; it was of normal specific gravity, however (1015), and free from albumen or sugar.

There is no history of hereditary tendency to epilepsy or to insanity, and no cause could be given by his family why he should be a victim to this malady.

Now, to me it is evident that this condition of phymosis in his case is responsible for his impaired physical and mental condition, and also for his epilepsy.

The line of thought followed out to this end is briefly this: When born he was, to all appearances, a strong and healthy child, but as he grew older he was noticed to have some urinary trouble. His phymosis is evidently congenital. He presumably had, even at this early day, some obstruction to the free flow of his urine, and so firm was his constriction it could not do otherwise than accumulate and distend the foreskin, be then backed up through the urethra and retained in the bladder in spite of strong efforts at expulsion by the bladder and abdominal walls.

From this the road is straight to cystitis, and sacculated and hypertrophied bladder, which is still remaining and is still distressing him.

He loses his natural sleep from pain and the necessity to rid the irritated bladder of an ammoniacal and irritating urine, is constantly wet, and in a frequent condition of sexual orgasm, and, in fact, is the victim of a perpetual irritation upon and in a set of nerves we know to be intimately connected in their physiological and pathological relations with spinal and cerebral functions and disorders, and to the irritability of which we trace many of our cases of neurasthenia, hysterica, etc., in females, and toward which we may well look in seeking a cause for epilepsy in both sexes. He fails in bodily health and vigor, becomes anæmic and dull, and, as before said, when six years old, becomes an epileptic without other assignable cause. The inference is plain: the cause of his epilepsy, idiocy, and physical breakdown, is primarily only a congenital phymosis.

It may be said this is a rare case, but it is so only in being an extreme one; it has many minor parallels, the unfortunate followings of which are serious but perhaps only delayed.

What can be hoped for from the operation done upon him? Very little aside from the relief of the local discomfort to which he has been so long a victim, and even that, I fear, cannot be entirely remedied, for in an examination made July 2d he was found to have his urinary meatus much inflamed, and gummed together with a sticky, viscid mucus, and a prostate gland so much enlarged

and hypertrophied as to obstruct the passage of a number five steel sound, showing a prostatitis and prostaticorrhea of no small degree. It is, however, but just that he should be placed under the most favorable circumstances for recovery, and particularly so when it involves only so trivial an operation. "The epileptic habit" (as it is called), once established, and long maintained, is seldom broken by the simple removal of a peripheral cause, as the disease induces changes in the nerve centres and membranes which the removal of the primary cause (if distal) cannot effect.

A very long prepuce, even free from constriction, I should regard as a malformation and advise its amputation. It interferes with cleanliness and induces sexual orgasm in very young children, attracting attention to the penis at a time when they should know it, simply as a urinary appendage, without other function, and is doubtless instrumental in making onanists.

Echeverria, in his famous work on epilepsy, says: "Congenital phymosis, in the case of males, renders them specially prone to onanism. This malformation is not necessarily incompatible with health, though it may become a frequent source of troublesome local and general derangement."

Althaus, in an article in *The Lancet* of February 16, 1867, upon "The relation of phymosis to epilepsy," speaks of meeting with the malformation in eleven out of twenty-five consecutive male cases of epilepsy, admitted at the London Infirmary for Epileptics and Paralytics (nearly 40 per cent.).

Echeverria did not find so great a proportion, and in my own investigations among the epileptics in the New Jersey State Lunatic Asylum a smaller proportion was also found (36.5 per cent.).

Thirty-three male epileptics are at present (July 3d) in the institution, and out of that number twelve were found to have phymosis and ten elongated foreskins to an extent which might be mischievous. Twenty-one of these men are known to be, or admit having been, habitual onanists, and the actual number addicted to the habit is probably much larger.

It would not be proper to infer that this habit has, in all these cases, arisen from the malformation, for no doubt in some cases the elongation may have been induced by a long continuance of the practice, and in the same way we know it to be true that the practice is often a result of mental disturbance and consequent abandon. Still in many of these cases we know that the phymosis is congenital and responsible wholly, or in part, for the vice.

As to the potency of masturbation in the induction of mental derangement and causation of epilepsy, we have many celebrated authorities who set forth in their strongest possible words the great influence they believe it to have in causing them. Marshall Hall, Brown-Séquard, Van der Kolk, Echeverria, Maudsley, and Sheppard, agree that "epileptic attacks, like every reflex or direct action of the spinal system, are always excited"; "that epileptiform convulsions may be constant consequences of slight irritations upon certain nerves," and that specially is a continued spinal irritation (like that present in the class of cases we are considering) likely to be followed by the kinds of

disease now common in our overcrowded asylums and homes for the feeble-minded.

There is a peculiar form of melancholia common in asylums, and recognized and described by nearly all authorities upon psychology, which has its origin in a long-continued habit of masturbating. In looking into the matter as bearing upon this question of phymosis, I find the greater number of such cases with which I have met have either a complete phymosis, or such a long prepuce, as in my judgment may have interfered in early youth with cleanliness, physical and moral.

The solitary vice soon leads to a desire to be alone at all times; the victim becomes depressed, and, as Van der Kolk says: "In a word, the depressed tone of mind here passes over into religious melancholia; all afflictions have a religious color." "This peculiarity I have so often and constantly noticed that I venture to express my conviction that we should rarely err if in a case of religious melancholy we assumed the sexual apparatus to be implicated, either through onanism or through other causes."

In examining the works of many of the best authors of the later days, I find more or less a common expression of opinion in relation to this matter, which my own experience verifies, as it is in general about this. That many forms of mental derangement from mania to dementia may be caused by habitual onanism, and that a large proportion of the epileptic and melancholic cases we find in our asylums are results of some sexual irregularities.

That phymosis (or great elongation of the prepuce even) induces a desire to onanize, I regard as proven and axiomatic; so we can easily trace many of these various maladies to a very easily avoided cause.

To correct a phymosis, or amputate a long foreskin in infancy, is a simple operation, done without risk daily by men without medical education, as a religious office, and in obedience to the Mosaic law. It should not be omitted by any, where necessary as a wholesome and cleanly measure.

Moses, if not inspired, had some very good notions regarding wholesome food and hygiene in general, and the so-called Mosaic laws prohibit many things besides pork, which modern science has shown we are better without, and directs many things which we of this enlightened age would find advantageous and wholesome; and this office of circumcision is not the least important of them all.

There is one more point worth considering in this connection, and it is this: circumcision materially decreases the risk of contracting venereal diseases, as where impure connection is had; not so good protection is afforded the specific virus and a much less liability to absorption is present, and in this age of promiscuous and free adultery, and prevalence of these loathsome maladies, all will admit it to be important that we do what we can to prevent what it is always troublesome and sometimes impossible for us to cure.

Note of case made August 4, 1884.

From the time this patient was operated on (June 21st) until July 3d, there was very little change in his general condition. He continued having many

short and not severe epileptic attacks, varying in number from twenty-three to three or four in twenty-four hours, but on no day being entirely without them. During this time the incisions healed nicely, without hindrance or accident, and some improvement was made in the condition of the bladder, as evidenced in a better control of its contents; the sexual orgasm was not so annoying, and his nights were more comfortably and quietly spent.

On July 3d he had a chill, followed by considerable fever, refused food, and was evidently very ill, the cause of which was apparent on the next day in an attack of erysipelas of the face, which soon became very severe, but ran the usual course, and was over in about two weeks; he then became much brighter and more vigorous than he had been for many months, and continues up to this time in an improved condition. During the time from July 3d to July 26th he had *no epileptic seizures whatever* (an entirely new state of affairs), as at no time during his previous stay in the house had he been more than two or three days without them, and even now they are much less frequent and severe than formerly, and he has had none up to this writing since August 1st.

Ever since his admission the bromides in various forms and combinations had been used in all available ways, but with no benefit. At the time of the operation they were discontinued, and a stimulating and chalybeate treatment was adopted, which is still continued.

He is now in a much more comfortable condition in respect to his genital irritation, as orgasm is seldom noticed, and he controls his bladder for many hours at a time, and is apparently free from pain during micturition, as he no longer cries out or complains. His progress is very satisfactory, and better than I had looked for, as his case is an unfavorable one of a class in which we are compelled by many failures to hope little from treatment, medical or surgical.

REPORT ON OTOLGY.

BY H. L. MORSE, M.D.

TREPHINING THE MASTOID.

AMONG the papers read before the International Congress of Medical Sciences, last summer, at Copenhagen, was a concise and clear article by Professor Schwartze, of Halle, on the indications and contra-indications for the operation of opening the mastoid process of the temporal bone.¹ He says:—

The operation is indicated:—

(1) In acute inflammation of the process with retention of pus in the osseous cells, if, after the application of antiphlogistics and Wilde's incision, the oedematous swelling, the pain, and the fever still persist.

(2) In chronic inflammation of the process, with subcutaneous or subperiosteal abscess, or with fistula leading into the bone, whenever symptoms of such a character as to render recovery impossible are not at the same time present.

¹ *Annales des Maladies de l'Oreille, du Larynx.* November, 1884. Tome x., No. 5.