

sum, and terminates anteriorly in the glans penis; the bulb and membranous portion of the urethra form the first curve of the canal. The cavity of the urethra is far from being of the same caliber throughout; it diminishes as it penetrates the prostate, enlarges in the middle of this gland, contracts again at its exit, and becomes cylindrical in the membranous portion, where it is narrower than at any other part. Arrived at the bulb, it enlarges again, preserves this caliber as far as the base of the gland, and then dilates to form the fossa navicularis; it terminates, as you all know, at the summit of the glans, by a somewhat narrow, flattened orifice. We should also remark that the curvature of the urethra differs, according as the organ is in a state of relaxation or erection; and that in this latter condition the curve situate in front of the pubis is entirely effaced. Finally, the urethra presents a small blind canal, which anatomists have denominated sinus morgagnii, in front of the bulb.

The internal surface of the canal, like the rest of the excretory apparatus, is lined by mucous membrane; it alone forms the portion of urethra embraced by the prostate gland, from whose substance it is separated by a membranous layer: the membranous portion is the most delicate and weak, though supported and protected by several accessory parts: and finally, the parietes of the urethra, in its spongy portion, are chiefly formed by a kind of substance which commences in front of the membranous part of the bulb, and is composed of an immense quantity of fibres which seem to be detached from a very fine membrane surrounding the corpus spongiosum of the urethra.

The lining mucous membrane presents a pretty deep-red colour at the external orifice and fossa navicularis, but becomes more pale for the rest of its extent. It is very fine, and appears formed by a single thin layer; it is continuous on one side with the mucous tissue of the bladder, and on the other with the skin of the gland. This membrane is endowed with a high degree of sensibility, and its vessels and nerves are derived from branches which we shall presently have occasion to describe as supplying the cavernous and spongy tissues of the penis.

. The learned lecturer has indulged so much more in anatomical description than we were led to expect, that we incline to sacrifice the depictions of parts to his physiology. The regret attending omissions will be balanced by the pleasure of limiting what we publish to that which is strictly novel in opinion.

HYDROCEPHALUS

UNSUCCESSFULLY TREATED BY TAPPING.

To the Editor of THE LANCET.

SIR,—The following case of hydrocephalus which I unsuccessfully endeavoured to relieve by tapping the head, is one of many others bearing on the disputed point of paracentesis of the cranium, and which, fairly considered, cannot but be of some use to the practical inquirer, although it is by no means calculated to hold out very encouraging hopes in favour of an operation. I am, Sir, your obliged and obedient servant,

FRANCIS COOPER.

Southampton, June 9, 1835.

— Olding, æt. two months, a healthy-looking child, but on account of the undue size of the head, which has acquired considerable volume since birth, its appearance is rendered somewhat dull and peculiar; the parallelism of the eye is destroyed by the action of the superior oblique muscles, or from the pressure of fluid on the nervous centre, adding much to the deformity. When born, the circular measurement of the head was seventeen inches, and the occipito-frontal twelve inches. The labour was long and difficult, and it was immediately remarked after delivery, that the head, from its great size, and from the fluctuation which was manifested on the slightest percussion, contained water.

There was not much constitutional disturbance till near death, but the secretion of urine was scanty throughout, and after each operation was nearly suppressed. The bowels were pretty regular, and the motions good; and as the child attained its second month, it noticed and smiled when fondled by its parents, but did not appear to be quite so well as children of its age.

The head itself certainly had, as I have just remarked, a peculiar appearance; all the bones were disunited, and the fontanelle was so distended, that you might place your hand between the parietal and frontal bones. As the parents were desirous that something should be done, I gave half a grain of calomel every night at bed-time, with a view to act on the absorbents, and squills and digitalis on the kidneys; but these not producing any effect, and the head continuing to enlarge, they were anxious that an operation should be tried, as two other gentlemen were of an opinion that it was the only, although a doubtful remedy. Concurring in the same opinion, I yet stated candidly what I

thought, and gave them no hope of a favourable termination, but as they pressed the necessity of doing something further, I agreed at the end of the second month to tap the head. At this period the circular measurement had increased to twenty-three inches, and the vertical to about twenty-one.

The child being placed in the father's lap, and the head held a little above the horizontal line, a puncture, about the fourth of an inch in depth, was made with a common lancet, a little to the left of the great longitudinal sinus, and just above the occiput. Twenty-eight ounces of water flowed from the wound, after which it was closed with sticking-plaster, and a bandage was rolled round the head to keep the parietes steady, and to prevent the flapping of the bag-like cavity and water against its sides, as a considerable quantity of fluid was still remaining; but the child becoming a little unmanageable, and the lips of the wound beginning to offer an impediment to its free exit, it was thought better to finish at once, and put him to bed.

The facial appearance was improved by the operation, and scarcely a drop of blood was lost. The sense of hearing, however, was so increased, that the parents were obliged to whisper; and when removed up-stairs, the little creature was so extremely vigilant, that a footstep in the room below disturbed it. Water still continued to ooze from the wound for two or three days, when it began to close without trouble, or any unpleasant symptom. As much fluid was thought to have passed, *guttatim*, after, as at the time of the tapping; but as I had no means of ascertaining the quantity by measure, it is impossible to say how much there might have been; it must, however, have been considerable, as several pillow cases were drenched with it; and it would not, I think, be too much to estimate it at one-third or fourth of the original quantity drawn away.

On submitting a portion of the fluid to heat, no coagulation took place, nor did the acids nitric or sulphuric produce any change; but the acetate of lead threw down a slight turbid deposit, which soon dissipated on standing, and still more quickly when a little was placed in a glass flask, and submitted to the flame of a candle. It was of a very pale straw colour, characterized by a serous odour, and presented the usual appearances of fluid contained in the ventricles after death. The urine submitted to the same tests yielded nearly similar results; neither coagulation nor deposit being pro-

duced by heat, or by any of the acid or alkaline reagents.

For some days after the operation, except the two or three immediately following, the child appeared much better; the calomel was continued twice instead of once a day. A couple of leeches were applied to the temples, and the squills and digitalis were given as before, but after the lapse of a fortnight the head was as large as ever. Tapping was again tried, but without much relief, the water not coming away to more than a few ounces. After this last attempt the child gradually sunk, and died in about a week. I would remark, before noticing the state of parts after death, that a lancet is by no means a good instrument for opening the integumentary and membranous coverings. As the least motion on the part of the child may disturb the lips of the wound, and entangle the edges of the dura mater in the outer opening, or divert them from the direct line of communication. This I experienced several times, and was obliged to separate the sides of the puncture to give free exit to the water. The best instrument would be a very fine flat trocar, as we could regulate the flow and quantity of the contained fluid as we pleased; but if, after all, we come to consider the real seat of disease, as well as the obscurity of the cause or causes in which it is involved, coupled with the danger of wounding the cerebral substance and its envelopes, we should hesitate before we place any reliance on mechanical means for affording a cure. Indeed I am of opinion that very few cases of confirmed hydrocephalus can be cured, and such as the one I am now treating of, impossible.

When, however, there is any modifying circumstance, as great functional disturbance, or visceral derangement of any other part of the body, the zealous advocate for paracentesis, after due preparation, may attempt it if it be thought the only remedy; but, for my own part, I have very little confidence in it, and scarcely think the prospect of remote advantage counterbalances the risk of immediate evil. These are points, after all, that must be decided by the circumstances of the case, for if death be thought inevitable, and at no great distance, and the practitioner thinks there is a chance of success, particularly as the operation is attended with scarcely any pain, he may use his own discretion respecting it; but I am much deceived if, in a very large majority of cases, he do not fail in affording the most temporary, much less a permanent relief, as all the symptoms will be found to return, and the water to accumulate

within a month, or two at furthest, after its abstraction. The great distinction to be made I conceive is between cases which are idiopathic, and those which arise from other causes, such as venous or inflammatory congestion depending on functional disorder of the stomach, bowels, or liver; or, as inflammatory action, acute or chronic, originating in the cerebral substance itself, or its meninges. If the first of these,—as was the case in the present instance, with distinct fluctuation, enlargement and separation of the bones of the head, with progressive increase in the size of the organ itself, accompanied with scanty secretion of urine,—then I am afraid that no means will avail, as the cerebral mass must have undergone such changes, as to render its restoration to a healthy and normal state impossible.

Autopsy.—Although I did not open the head for two days after death, the dura mater and pia mater were found highly vascular, and the latter, at the point where the lancet had penetrated, was injected with dark-coloured blood to the extent of several lines. The whole cerebral mass was spread out into a bag or sac, about a quarter of an inch in thickness, which lined the entire cavity of the cranium. The convolutions were indistinct and nearly obliterated, and on slitting the sac open, double the quantity of water, or nearly so, was found, which was abstracted by the first tapping. The crura cerebri were the only anatomical remains discoverable, and they were reduced to a semi-fluid state; the whole of the bag-like cerebrum was also much softened, and on examination it almost dissolved under the finger. The cerebellum was firm, and apparently healthy, but presented a much darker appearance than usual.

REFLECTIONS ON

INFANTILE REMITTENT FEVER.

By JOHN ALEXANDER, M.D., Manchester.

MANY of the diseases incident to childhood have, it is to be feared, been too often subjected to a routine of simple treatment not more inadequate to their removal than inconsistent with the improved principles of modern therapeutics. Within the last few years, however, the attention of the profession has gradually become attracted towards a sphere of usefulness as extensive as, until of late, it has been comparatively uncultivated; and it

may not perhaps be too much to affirm, that when once the minds of medical men have been *generally* turned to infantile pathology, the interesting and important nature of the subjects involved in its study will more than compensate for the additional labour its particular consideration undoubtedly entails. True, it may be said, pathology is surely the same science, whether its principles be deduced from the crib of the child or the bed-side of the man. But of him who objects to a *special* study of the disorders of children, I would ask—if periods of life are not characterized by correspondent ailments—if age materially modifies not disease—if the unsuccessful treatment of infantile afflictions has not hitherto been regarded as one of the too many “*opprobria medicinæ*;”—and, lastly, if our bills of mortality derive not their swollen numbers in a great measure from the little-understood, and, still more, from the neglected diseases of the young? Provided the remonstrance hold good, it results as a consequence that the subject alluded to is one recommended to our attention, not more by the claims of humanity than the truest interests of medical science.

To proceed:—Infantile remittent fever (the subject of the succeeding remarks) has received from various writers a considerable variety of names; hence we have atrophica infantilis, marasmus, infantile fever, tabes mesenterica, infantile hectic, &c. &c. Upon a close examination, however, we find that the preceding terms are but synonyms for one and the same complaint, some commentators choosing to derive their nomenclature from the observed *effects* of the malady, others from the presumed *causes* of the disorder. The principal writers who have contributed to elucidate the disease are, Hoffman, Baglivi, Goelis, Musgrave, Sinclair, Hunter (Wm.), Clarke, Pemberton, and Butter.

Having now, for seven years, officiated as one of the two medical officers attached in this town to the General Dispensary for Children (an institution which during that period has admitted on its books no fewer than 8000 cases of every variety of ailment incident to the first twelve years of life), to treat a considerable number labouring under infantile remittent fever has necessarily fallen to the writer's lot. Moreover, the frequency of the ailment about to be considered, in the upper walks of society, affords too ample material for its study and illustration. Hence I trust the peculiar opportunities for observation enjoyed, constitute more than an apology to the profession for its attention being invited to a subject with which the expe-