found extensively applicable to cases of diarrhœa from primary intestinal irritation; but whether it be equally applicable to epidemic visitations in their severer forms, and in low and ill-drained districts, or whether drastic purgatives would not rather tend to hurry on the stage of collapse in cases where the type is low, remains to be proved. Mr. Edwards regards his treatment as a modification of Dr. Ayre's, or rather as an improvement upon it, and attributes the success of the calomel treatment to the same principle—the riddance of offensive matter.

3. Dr. Lingen, of Hereford, reports that his own locality has been entirely exempt from cholera, not only in the recent visitation, but likewise in that of 1832, and that he cannot satisfactorily account for the exemption. He mentions two or three circumstances, namely, "the over-abundance of vegetation in the county, the free use of cider, and the almost contemptuous disregard of ventilation and sewerage," as conditions which, one would say, *a priori*, were highly calculuted to invite and retain the scourge. The locality is on the "old red-sandstone," with lime here and there; a clayey soil interspersed with gravel. The writer concludes with an observation worthy of note, viz.: "It may be, that so far from cider being productive of such a disease, it tends to keep the system in good order. I am highly impressed that it is a wholesome drink, less adulterated, and consequently less harmful than beer." This suggestion opens a field of inquiry full of interest. It is a prevalent opinion that a strict abstinence from fruits, acid drinks, and even vegetables, renders the system less susceptible of choleraic influences. Is it so?—or is the contrary true? Dr. Lingen suspects that the whole county of Hereford has been also exempt, excepting a few border cases, and some imported from a distance. We shall now look with anxiety for the reports of the members residing, not only in Herefordshire, but in Devonshire and other counties where cider is the staple beverage. And it is worthy of inquiry, whether persons who have refrained from acid drinks and wholesome fruits, during the epidemic, have enjoyed any marked immunity from the cholera, or whether they have not, in some cases, been the first or the only victims in a family or household. This question is invested with double importance, from the fact, that the prophylactic treatmeant of cholera is the only treatment upon which the profession appears at present likely to agree.

The above notices are all that can be gleaned of peculiar interest from the few replies yet received. The rest are valuable as statistical documents, but contain nothing unusual. It is hoped that before another week has elapsed the responses of the members will flow in more rapidly; and it is earnestly requested that *all the reports may be forwarded before the first of January next*. It is publicly known that this inquiry is set on foot; but the whole body must put their hand to the work, or little will be done; and it will be asked,—"What has the Provincial Association accomplished, with all its powers and advantages, to elucidate the pathology and treatment of the cholera?"

Bedford Square, Dec 6, 1849.

Foreign Department.

BARTHEZ AND RILLIET ON THE CEREBRAL DISEASES OF INFANCY.*

Translated for the Provincial Medical and Surgical Journal.

BY E. COPEMAN, M.D., NORWICH.

Hypertrophy and Induration of the Brain.

The anatomical characters of the disease described under the name of cerebral hypertrophy, are in some respects identical with those assigned by certain physicians to general induration of the brain; and it is difficult to separate these pathological conditions into two distinct maladies. Increased density of the cerebral mass is the principal and most appreciable phenomenon, and this is common to both affections; the only difference between them is, that in hypertrophy, the increase in the size of the brain is very apparent; whilst, in general induration, it is scarcely perceptible. There is a manifest increase of consistence in the encephalic mass, but it varies much in degree. In the first degree the tissue is firm and slightly elastic; the brain may be separated into fine layers, and has a similar consistence to that which it acquires after being macerated in alcohol; the grey substance generally loses its colour, and the white has an unusually brilliant appearance. In a more advanced degree, the cerebral substance offers resistance to the scalpel, and is not broken down without considerable pressure. In a still more advanced stage, the brain becomes elastic and has acquired a firmer consistence.

When manifest hypertrophy is combined with the condition just described, the brain offers a peculiar appearance; its size and weight are sometimes considerably increased, filling accurately the cavity of the cranium; the membranes are tense and in close contact with the convolutions, which are flattened and project as soon as the membranes are divided; the aufractuosities are almost obliterated, the ventricles almost effaced and containing no fluid, and the membranes are in some cases pale, in others injected. Neither inflammation of the arachnoid or pia mater, nor tubercles, were in any case observed.

It is impossible to determine clearly what are the symptoms of hypertrophy of the brain, from the paucity and heterogeneous nature of the materials at command. The following observations will, however, throw some light upon the subject:—

1. In one form the disease is primary and occasioned by the poison of lead. (Papavoine.) A general feeling of illness is followed by pain in the body, copious green vomiting, with or without diarrhœa, headach, or severe abdominal pain. These symptoms are speedily followed by violent convulsions and loss of consciousness. As the disease progresses, we observe alternate convulsions

* Continued from page 638.

and coma, dilatation of the pupils, contractions of the limbs, coma, and death. Febrile symptoms make their appearance only towards the close of the disease, which lasts about four or five days. After death we find hypertrophy and induration.

2. In another form the disease is also primary, but may be traced back to a distant period, perhaps even to birth. It is attended with considerable increase in the size of the head, similar to that which takes place in hydrocephalus. Thus, a boy five years of age had a head as large as an adult, and so heavy as to cause him to fall when attempting to run. After a time, cerebral symptoms, variable in nature and intensity, appeared, and sooner or later terminated in death. In another case, severe convulsions, followed by loss of sight and diarrhœa, marked the commencement of acute symptoms. At the end of a fortnight, the eyes were restless and without expression, the pupils contracted and turned upwards; strabismus divergens in the left eye; all the senses except that of sight in a natural state, and the movements of the limbs under the control of the will. For a month there was no perceptible alteration; then debility, somnolency, and irresolution supervened; five weeks later the drowsiness was increased, signs of double pneumonia were discovered, and the child died. Another patient was seized with inflammation of the bowels at the age of five years. On the sixteenth day a sudden increase of the symptoms took place without any evident cause; the intellectual functions were completely obscured; the pupil large but the iris still sensitive; respiration became difficult, the pulse diminished in force and frequency, and in a few hours the child died. Considerable hypertrophy of the brain, with more or less induration, was discovered after death.

3. In a third form, the symptoms were those of idiocy; and induration without hypertrophy was discovered after death.

4. In a fourth form the disease is secondary, and becomes developed during the progress of different affections; such as typhus fever, myelitis, and diseases attended with very severe pain. In these cases there were no symptoms diagnostic of induration of the brain, but the patients had delirium, or suffered extremely acute pain; and the examination after death discovered induration in the first degree, without hypertrophy.

The following is a remarkable case of hypertrophy of the convolutions, accompanied with corrosion of the cranium:—A boy, two years old. First attack of convulsions three months before death, and just previously to the latter event, a second attack, followed by coma, strabismus, and paralysis of the muscles of the neck. *Autopsy:* Head narrow before and behind, wide in the parietal region, and projecting very much at the sinciput; the fontanelles ossified; parietes of the skull of variable thickness, in some places very thin, and even perforated, in others thick; convolutions of the brain prominent, pressing forcibly against the depressions in the bone, and in two places perforating them; the brain generally flabby, and the convolutions soft; grey matter of a deep red colour, the white also of a reddish tint, and dotted; two spoonfuls of serum in each ventricle, the walls of which were softened; dura mater of a violet colour; arachnoid smooth, transparent; pia mater very thin, minutely injected, and adherent to the convolutions; the vessels filled with blood.

The following case of *partial* induration of the brain occurred in a scrofulous child eleven years of age:—There were no other symptoms of cerebral disease than slight contraction of the upper extremities, which were painful when attempts were made to extend them. *Autopsy:* Pia mater not injected; plentiful sub-arachnoid infiltration; membranes easily detached; grey substance pale, white, not dotted; on the inner surface of the left hemisphere along the great fissure, there was one convolution much firmer than the rest, particularly in its centre, where it was red; the redness was circumscribed, and here the cerebral substance was of the consistence of membrane; some transparent serum was contained in the ventricles, the parietes of which were in a natural state, and the rest of the brain very firm.

Hydrocephalus, or rather hydrencephalus, is introduced under the head of dropsies. It may have its seat either in the arachnoid, ventricles, or pia mater; or the brain itself may be infiltrated with serum. It is difficult to determine what quantity of fluid so situated may be sufficient to constitute disease; and with respect to dropsy of the pia mater, it has no distinct symptoms, is followed by no ill consequences, and requires no treatment.

Dropsy of the ventricles is admitted to exist as a disease when the quantity of fluid they contained is sufficiently visible to distend their cavity; when there is not fluid sufficient to produce this effect, the quantity is considered normal, or at all events not enough to constitute disease.

In *œdema of the brain,* the fluid is not extravasated in the form of a collection, but is infiltrated into the tissue, which it softens without altering its opaque-white colour. It is supposed that frequently it takes place after death, although occasionally it is no doubt the product of disease. The liquid infiltrated or effused in pure hydrocephalus is generelly limpid, transparent, and clear; not coagulable by heat, containing but little, if any, albumen; nor has it any product of inflammation mixed with it. But the disease may result from a former extravasation of blood, in which case the fluid retains something of its original character, being serous, citron coloured, albuminous, and turbid or mixed with blood.

Acute Hydrocephalus.

This disease is of rare occurrence, and consists in a rapid, but non-inflammatory accumulation of serosity in the cranial cavities, or in the substance of the brain. The membranes, although *generally* pale and of a healthy colour, are sometimes injected, and thus establish a transition from simple dropsy to that which results from inflammation. The substance of the brain is healthy, or perhaps slightly congested, and some-

times softened where it is in contact with the fluid. It is extremely difficult to determine what are the symptoms which indicate the disease now under consideration; the principal appear to be extreme restlessness, cries, or rather continual groans, superseded shortly before death by great prostration, loss of consciousness, coma, dilated pupils, and paralysis. But in some cases these are not all present, and in others they have all been absent, and the disease been discovered only after death. It is very rarely an idiopathic affection, although frequently a consequence of other diseases, particularly of such as are complicated with anasarca—as measles, nephritis, scarlatina, gangrene, and enterocolitis. Age appears to have considerable influence in the production of this complication, for in thirteen children one only was upwards of six years of age; but either sex was equally liable to it.

The chapter on chronic hydrocephalus contains a good description of the disease, but offers nothing of novelty or usefulness which is not to be found in other writers. From the dependence, generally, of the dropsy on some other disease of the brain, such as tumour, tubercles, extravasation of blood, &c., a very unfavourable prognosis is drawn, and but little is recommended in the way of treatment that promises a hope of success.

Cerebral Hæmorrhage.

Hæmorrhage may occur either in the scalp, under the pericranium, between the cranium and dura mater, between the latter and the arachnoid, in the cavity of the arachnoid, in the meshes of the pia mater, in the substance of the brain, or into the ventricles. Hæmorrhage into the pericranium and dura mater, are of little diagnostic or therapeutic importance, but hæmorrhage of the arachnoid is a more serious affection, and may arise—1st, from extravasation, in consequence of fracture or rupture of vessels; 2nd, from exhalation; 3rd, from disease of the arachnoid, the second being the only source from which we have observed it to arise in children. The symptoms of arachnoidean hæmorrhage are exceedingly obscure, and frequently confounded with those of other cerebral diseases. A boy, two years old, was attacked with convulsions for five weeks before his death, which recurred every day, lasting ten minutes or a quarter of an hour. A week before he died they became more frequent; in the intervals there was considerable perspiration on the head, the feet and legs being cold; two days before death there was pain in the head, and free epistaxis. There was diarrhœa during the whole course of the disease. The only morbid appearance discovered after death was extravasation of blood in the arachnoid, so that the convulsions could be attributable only to the presence of the clot.

Hæmorrhage of the pia mater is less frequent in children than that of the arachnoid. M. Tonnellé gives the following case:—"The dura mater was much distended, and a thick dense layer of coagulated blood, of a deep colour, was extravasated under the arachnoid at the upper part of each hemisphere. The veins ramifying upon the upper surface of the brain were distended with clotted blood, and some had given way at several points. The following symptoms were observed:—On the first day, depression, unwonted seriousness of manner at intervals, with some convulsive movements. Next day the trunk and lower limbs were rigid; deglutition difficult; pupils fully dilated and immoveable; face pallid; pulse feeble and intermitting; death soon followed." The substance of the brain was healthy.

Cerebral hæmorrhage, or hæmorrhage into the substance of the brain, although of frequent occurrence in old people, loses much of its importance when it occurs in children. It is seldom a primary disease, is generally of small extent, and scarcely ever occurs except just before death or in the course of some otherwise incurable disease. It is then sometimes completely latent, discoverable only after death, and the practitioner is unable to recognise it. The symptoms which have been noticed throw no light upon the diagnosis of the disease, and are quite different to those assigned by authors to apoplexy; and as if everything conspired to render the diagnosis obscure, cases have occurred in which most of the symptoms of apoplexy were present, and yet no extravasation was found after death. The symptoms may generally be referred to one or other of the following types, viz., convulsive inflammatory, or paralytic, the first belongs more especially to meningeal apoplexy, the second to cerebral hæmorrhage.

The causes of hæmorrhage in the head are,—

1. Improper treatment of diseases of the scalp.
2. Diseases of the sinuses of the dura mater.
3. Compression of the superior vena cava by enlarged bronchial glands.
4. Pressure on the vessels by hypertrophy of the liver or spleen.
5. Cachexia and general debility, usually connected with tuberculization.
6. Occasionally the hæmorrhage is primary, and not dependant upon previous disease.

Meningeal hæmorrhage is most frequent in children of the age of from one to two and half years; whilst cerebral and ventricular hæmorrhage are rare at this early age, and more frequent at a more advanced period of life. Sex appears to exert little or no influence.

The prognosis is very unfavourable, and it is difficult to arrive at any reasonable mode of treatment, owing to the uncertainty of diagnosis. Nevertheless, when the disease is chronic, occupying the arachnoidean cavity, and causing an increase in the size of the head similar in appearance to chronic hydrocephalus, the operation of making a puncture to evacuate the fluid is more likely to be successful than in the latter disease.

In the acute form, the treatment consists in bleeding, cold applications to the shorn head, purgatives (especially calomel) and purgative injections, warm pediluvia, sinapisms, blisters, and a general antiphlogistic regimen. In the chronic form, M. Legendre advises salivation, purgatives, diuretics, and compression.

(To be continued.)

ABSTRACT OF THE PROCEEDINGS OF THE FRENCH ACADEMIES.

ACADEMIE DE MEDECINE.

The Academy has received numerous communications on *cholera*, the majority of which, like many of the scribblings on the subject in the country, may be pronounced to be, in a scientific point of view, utterly worthless; we do not in fact find a single memoir worthy of transfer to our pages.

One of the essays which has excited a large share of attention among the members of this academy is that by M. Robert, "On the Dangers of Chloroform." The author's object in this memoir is chiefly to ascertain if there are any signs by which it may be, *a priori*, known that anæsthesia will be accompanied with danger in a given case. Such, he thinks, will be found in those persons on whom inhalation produces great delirium and agitation prior to the occurrence of insensibility. In such he believes that the attempt to force insensibility will frequently be attended with fatal results.

In illustration of this he narrates the case of a powerful man, of very intemperate habits, who became the subject of strangulated hernia. After two days incarceration with stercoraceous vomiting, chloroform was inhaled to assist in the taxis, but it produced the most violent delirium and struggling; inhalation was, however, persisted in, and insensibility took place after half an hour. It was then found that the operation was required, and it was accordingly performed, but the intestine could not be liberated, and was opened, as the only means of saving life. The man remained calm after the operation, but died unexpectedly next day.

This case, which M. Robert regarded as an instance of the fatal effects of chloroform, gave rise to an animated discussion, in which Velpeau, Roux, Rochoux, Gaultier de Claubry, &c., took part. M. Velpeau opposed the view taken by M. Robert, that death ensued from the inhalation, and narrated several instances of sudden death after operations previously to the introduction of chloroform. He also made some useful practical observations respecting the various instruments and appliances used for inhalation.

M. Hutin, Senior-Surgeon of the Invalides, presented a specimen of injury of the spinal marrow. The case was that of a soldier who received a musket ball in the site of the two lower lumbar vertebræ. The wound was immediately followed by paraplegia, and healed without extraction of the ball. In the course of time the paralysis of the left leg disappeared, but the loss of power over the right limb was permanently lost. The functions of the bladder and rectum were intact. After the patient's death, which occurred at the end of fourteen years, from disease of the kidney, the ball was found implanted in the vertebral canal, having divided the right side of the canda egnina, the left half being only displaced.

Some other communications were presented, which we pass by as of trifling interest.

ACADEMIE DES SCIENCES.

The most interesting paper read at this Society during the past month, was one by M. Levas, "On the Effect of the Gastric Juice on the Medicinal Preparations of Iron." The result of his inquiries is in favour of the therapeutic efficacy of the double salts of iron, as the potassio tartrate, &c.

SOCIETIE DE CHIRURGIE.

M. Morel Lavallee presented to the Society a man who was remarkable for the number and symmetrical arrangement of *exostoses* on different parts of the body. The development of these growths commenced at the age of twelve, without any obvious cause, and occupied almost every bone near the surface. The patient was otherwise in good health.

Memoirs were also presented by M. Vidal "On the Effects of Syphilis upon Virility;" by M. Michou "On Electricity in Paralysis of the Bladder;" and by M. Morel Lavallee "On a Case of Neuroma of the Median Nerve."

On the Occurrence of Intercostal Neuralgia during the Course of Phthisis.—M. Beau endeavoured in a former memoir to establish that pleuritis and pleuro-pneumonia are generally accompanied by an inflammatory affection of the intercostal nerves, to which the pain or *stitch* is mainly attributable. He has since perceived that the same species of neuritis is also present in phthisis. Tubercles, as is well known, invade the upper lobes of the lungs, and give rise to attacks of inflammation, which extend, according to him, from the serous membrane to the nerves adjacent. This he has verified by inspection of the nerves after death, finding them enlarged and adherent to the pleura. The nerves generally affected are the first, second, and third.—*Archives Génerales*, Oct., 1849.

General Retrospect.

SURGERY.

On an Unusual Affection of the Penis.

By J. Kirby, L.L.D., F.R.C.S.I.

Mr. C., a hale, active, stout person of 50, for many years a great sufferer from gout in his extremities, but from which he has been usually free for the last few months, consulted the writer under the following circumstances:—For two years he remarked a progressive diminution in the size of the penis during erection, at the same time observing that it was deformed and so contorted as to be unfit for sexual purposes. He informed him that under excitement the glans never swells with more than half its natural turgescence. The corpora cavernosa are preternaturally firm, while the corpus spongiosum exhibits its accustomed pliancy. A very unyielding substance supplies the place of the suspen-