LECTURE
ON THE
DISEASES OF CHILDREN.

DELIVERED IN THE

Chatham Street School of Medicine, Manchester,

By DR. MEREI,

Fellow of the Hungarian Academy, late Professor of the History of Medicine at the University of Pesth, Clinical Professor of the Diseases of Children, and Director of the Children's Hospital at Pesth; Fellow of the Imperial Society of Medicine at Vienna, etc.

LECTURE IX.

Emetics; Antacids and Roborants for the Stomach; Soothing Medicines; Tonics; Astringents for the Mucous Membranes; Nervine Stimulants; Tonics for the Spinal Nervous System; Narcotics.

EMETICS.

GENERALLY infants vomit easily, and frequently throw up a part of the undigested milk. The indication for an emetic is also not unfrequent, but in many instances difficult to determine, in consequence of want of subjective symptoms, which are only communicated by words. Frequent eructations, combined with anorexia, or irregular appetite, improper alvine dejections, and a puffed-up epigastrium, with a proportionally slight, or no alteration at all of the pulse, are the most frequent symptoms of indigestion, which serve as the indication for an emetic. Far more obscure and ambiguous in its phenomena is the bilious state, where, sometimes, neither eructation, nor the puffed state of the epigastrium, nor superabundant bilious matter in the evacuations, appear; and the head being heavy and hot, fever and moaning being present, it becomes sometimes very difficult to decide whether to direct our remedies to the affection of the head or of the liver. In similar cases I have frequently been able to unravel the intricacy by a careful investigation, by touch and percussion of the right hypochondrium, and by inspection of the urine, in which latter we frequently detect, by its darker colour, or by a yellow brown stain which it causes on the linen, the bilious state.

In this place we will content ourselves with these slight remarks, which will require a more accurate exposition when we shall have to speak of abdominal affections; it belongs, however, to our present purpose to observe that supposing there be a well-established indication for evacuation by emetic, very much will depend upon the mode in which we carry it into effect. Many an infant or child, when emaciated, weak, and nervous, has been severely damaged by emetic medicines. Amongst these the Antimonii Potass. Tart. is the most dangerous for them. I have seen its use followed by superpurgation and collapse, and by death. In tender infants and children, therefore, it will be the safest plan to produce vomiting by a large drink of warm water, after it tickling the fauces with our finger or the barb of a feather. The next suitable mild emetic is the following:—R. Rad. Ipecac., scr. j. To be infused in

five drachms of boiling water for a quarter of an hour, strain half an ounce, and add Oxym. Scill., oz. ss. One teaspoonful every ten minutes. If we want it stronger, we may add to the same one to two drachms of Vin. Antimon.

The strongest emetic is the simple solution of tartar emetic. For a child about two years old one grain to two ounces of distilled water, of which, in case we wish to act at the same time upon the alvine evacuations, we administer at first some doses of one teaspoonful every quarter of an hour, and then two teaspoonfuls every ten minutes, until the full effect comes on.

Hyperemesis may be checked by a half, one, or two drops of tincture of opium, followed by a little effervescent mixture; its over-purging effect by a hot infusion of camomile, with an appropriate dose of tincture of opium.

ANTACIDS AND ROBORANTS FOR THE STOMACH.

Magnesia, Carbonated and calcinated, are both frequently prescribed in children's practice against acidity of the stomach and dyspepsy. I find they seldom improve the digestion of little patients, and a quantity sufficient to absorb a common amount of acidity in the stomach will most likely derange this organ by its bulk. At any rate the doses as commonly prescribed are too large. In the first week after birth I regard this plan as improper; and for children from one to two months old, a single dose, to be repeated three or four times a day, ought not to exceed one grain or a grain and a half.

Rhubarb, in powder, I do not like to recommend in earliest infancy. About the third or fourth month a single dose, intended to act as a tonic, ought not to exceed a quarter of a grain. The following digestive powder may be recommended:—R. Magnes. Calcin., gr. xij.; Pulv. Rad. Rhei., Pulv. Semin. Foenic., utrque, gr. ij.; Pulv. Doveri, gr. j.; Sach. Alb., scr. j. Fiat. pulv. Divid. in part. æq. viij. This for children of about four or six months old (Dover's powder being added if there be great irritability of the bowels). I prefer, however, for tender children the following prescription:—R. Aquæ. Chamom., oz., j.; Aquæ. Menthæ., dr. ij.; Sodæ. Bicarb., scr. j.; Tinct. Rhei. Aquosæ., gtt., xij.; (Tinct. Opii., if necessary, gtt. ij.) One teaspoonful every three or four hours. In all similar cases I find the addition of syrups improper.

Frequently the indication in question is fulfilled the best by a suitable regulation of diet and the occasional use of a slight infusion of camomile, mint, or fennel seeds.

SOOTHING REMEDIES, TONICS, AND ASTRINGENTS
FOR THE MUCOUS MEMBRANES.

Radix Salep—mucilaginous and a little astringent—scarcely used in this country, is one of the most generally employed remedies on the continent, particularly in Germany, Italy, and Hungary, against the mucous diarrhoea of children, in powder as well as in decoction. A slight ebullition is enough to get the

whole dissolved. It is the most suitable vehicle for opium, in diarrhoea, and I must recommend it to you very warmly in children's practice.

Lichen Islandicus.—Much similar to the former, with the addition of its bitter extractive. It acts in the atonic bronchial catarrh just as favourably as salep in that of the intestines. An excellent preparation is got by evaporating a strong decoction of it, and exsiccating it slowly, so far as to be pulverised. This, in some Continental pharmacopœias is called *pulvis gelatinæ lichen-islandici*, and prescribed in quantities like gum-acaciæ.

Tanninum.—The strongest vegetable astringent, which I prefer to colombo or cascarilla, because it acts in very small quantities, whilst the decoctions of the latter are not less disagreeable to infants and children, and besides that, too heavy in efficacious quantities; but even tannin I seldom employ for tender suckling children, and prefer to it—

Kino.—The powder of it, from a quarter to one grain three or four times a day, will prove efficacious in atonic catarrhal diarrhoea, if the case be a simple and manageable one.

I will now bring before you some of my formulæ of the above remedies:—*R. Rad. Salep., gr. viij.; Ebull. in q. s. Aq. usque ad solut. Dein infunde Radicis Ipecac., gr. iij. Post hor. ½. Colat., oz. j. Adde Tinct. Opii, gtt. j.—ij.; Syrup. Papav., dr. j.* For infants under one year old, every two or four hours, one teaspoonful against simple catarrhal diarrhoea.

R. Pulv. Rad. Salep. Subtiliss, Sach. Alb., utrq., scr. j.—ij.; Pulv. Doveri, gr. j.—ij. Fiat pulv. Divide in part. æq. viij. For the same purpose. Each dose being administered with a spoonful of warm water.

To this formula, in highly atonic cases, we may add from two to three grains of pulverized kino or tannin.—*R. Pulv. Gelatinæ Lichen. Island. Sach. Albi., utrq. scr. j.—ij.; Pulv. Dover., gr. j.—ij. Fiat pulv. Dividi in part æq., viij.*

Against bronchial catarrh, to be administered like the former, three or four times a day.

NERVINE STIMULANTS.

Some Aromatic Flowers, Herbs, and Seeds are prescribed in hot infusion, and are very useful against those irritations of the nerves, in particular, those belonging to the splanchni-spinal sphere, which, in the forms of spasms, so frequently infest young infants and children. Each dose ought to be prepared when needed. I can recommend the flowers of camomile, the herbs of mint and melissa, and the seeds of fennel and anise, most particularly in abdominal irritations and spasms, with flatuosity. The infusions ought to be given warm, from one to three spoonfuls for a simple dose. Allow me to draw your attention to one circumstance much deserving it. Camomile flowers are a common domestic medicine over the whole Continent. In Germany you will scarcely find a family, where there are young children, that does not keep it in the house. In England we find the contrary. Why? The simple reason is, that the soil and climate of this country is not favorable

to the development of the aromatic principle. I had not long arrived in England, when I observed that the fruit grows much larger than in Germany,—for example, strawberries—but is much less flavoury. A difference still greater you will perceive with aromatic herbs and flowers. Remember my words when you get into practice, and will have to attend families with children, do not neglect then to request a pharmaceutical chemist, to procure from Hamburg the German camomile, which you will find highly useful in every-day instances in the slight but exceedingly frequent abdominal derangements of infants. If you compare the English flowers of camomile with the German, you will find the former of a very handsome white appearance, and three times larger than the German, and this latter unobscured and yellow brown; but the difference of the infusion will be this,—the English very bitter and little aromatic, and the German little bitter and strongly aromatic. With regard to the strength requisite for an infant one or two weeks after birth, it may be one teaspoonful of an infusion made of one scruple of flowers upon three ounces of hot water during ten minutes. For a child two years old, for example, you may give more at once of an infusion of the double quantity of flowers, infused during fifteen minutes. Adding to the dose of from one to four teaspoonsful, one-eighth to one-half drop of the tincture of opium, according to the age of the child; this will prove active enough in soothing the common dyspeptic irritations and abdominal pains of infants.

Camphor, powerfully stimulant to the vaso-motory nerves, is the unique of similar stimulants, of which I made use in the adynamic fevers of children, alone or combined with quinine. The single dose for the age of from two to four years seldom ought to exceed one-eighth to one quarter of a grain every four or six hours.

Liquor Ammoniac.—The strongest of this kind of stimulants, seldom admissible, and only in the highest degrees of torpid adynamia, from one to two drops, with a spoonful of an aromatic infusion.

TONICS FOR THE SPINAL-NERVOUS SYSTEM.

Salts of Quinine.—I have seldom met with their indication in earliest infancy, intermittents being rare at this period of life. Useful as it is, as a general tonic, in some forms of adynamic fevers, with great prostration of muscular power, we seldom find opportunity for its employment before the third year. Children take it with great aversion, and their stomach frequently disagrees with it. Very much depends, therefore, upon the mode of its prescription. The following formula I found to answer the best:—*R. Aquæ Menth Pip., dr. vj.; Quinin. Sulph., gr. ij.—iv.; Acid. Sulph., q. s. ad sol.; Syrup. Simpl., oz. j.* One teaspoonful every hour during remittance or intermittence, until its full effect.

In the highly adynamic stage of typhus, camphor may be combined with it, and in the case of great nervous hyperæsthesia with inactivity of the skin, we add

opium to both. Quinine is decidedly counterindicated by gastric, in particular by bilious, disorders.

I have tried, and recommended quinine to be further tried against spasmus laryngeus and whooping cough. In both cases essential conditions of its application are the pure nervous nature of the affection, and the vegetative weakness of the child; and a good state of the abdominal organs. The good effect, if any, will show itself already between twenty-four and forty-eight hours provided the doses are administered actively enough.

Nux Vomica.—Tonic for the locomotive innervation of the spinal cord. The salts of strychnine are too powerful to be properly adaptable for young children. Above the age of eight years, the dose of the sulphate of strychnine may be from 1-48th to 1-24th of a grain morning and evening. The most convenient preparation is the alcoholic extract of nux vomica, from 1-10th to half a grain twice a day, for children from three to ten years old.

According to my experience this remedy is mischievous in that kind of paralysis which is characterized by permanent tonic contracture of the flexors, and called by French authors "*contracture essentielle*." In some chronic and purely atonic diarrhœas I found it useful; but it is difficult to determine beforehand which case will be favourable for it.

Iron.—The special tonic for the blood. I have frequently ascertained the state of chlorotic anæmia, even in young children, by the carotid murmur, connected with paleness and languor of their complexions. Good preparations are the saccharo-carbonate and citrate of iron. For children about two years old from one to two grains for a single dose of the former, and one-eighth to a quarter of a grain of the latter.

I beg to recommend to you a preparation of iron, the finest which I know, possessing, besides its chemical action upon the blood, a strong nervine quality. This preparation is known in Germany under the name of *tinctura nervino-tonica Bestusheft*, while its proper pharmacological name is *spiritus sulphurico-æthereus muratico-ferratus*. A chemist will be able to prepare it in the following way:—Take one part of the liquor ferri sesquichlor., and two parts of sulphuric æther, let it be mixed for a quarter of an hour, then let it stand for a while, and afterwards take away the æther which occupies the surface of the liquid. This is to be mixed with twice its weight of rectified spirit of wine. Let this mixture stand exposed to light (if possible to the sun) for several days, until the liquid becomes more discoloured. Conserve it afterwards in a hermetically-closed bottle.

This preparation is to be considered as a solution of iron in liquor Hoffmanni, of which it possesses the nervine qualities. Its true indication, therefore, is chlorosis or anæmia, connected with nervousness. The doses for children are from one to two drops twice a day. This preparation is also an excellent nervino-tonica for delicate females.

NARCOTICS.

Hyoscyamus, aconitum, belladonna, aqua lauro-cerasi—as soothing remedies against irritation and

pain—frequently employed by practitioners, seem to me, after a strict comparative trial, to be scarcely trustworthy.

Opium is the only remedy of the kind powerful and of utmost utility in children's practice; but we must be aware of its counter-indications, and, if indicated, know how to administer it. Essential counter-indications are,—acute fever, with an active character; typhus, connected with nervous torpor; active and passive congestion of the brain; saburral, or bilious gastric disorder. Moreover, it is necessary to bear in mind that tender and exhausted children are easily narcotised to a dangerous degree by doses moderate in proportion to their age.

It is important to wait after each dose of opium at least three or four hours before the administration of the next, in order to enable ourselves to watch the effects, and stop in time, as soon as narcotism shows itself.

Moderate narcotism, if the remedy were truly indicated, will go off without bad consequences. If, however, narcotism should increase more than five hours after the last dose, we apply large cold fomenta to the head, a mustard poultice to the neck, and a purging injection. If these means show no advantage in about an hour, we apply some leeches to the temples, and administer from one half to two teaspoonfuls of recently roasted and infused coffee, to which, in cases with much abatement and exhaustion, we may add from a quarter to one drop of liquor ammoniæ; this may be repeated, according to the nature of the case, once or several times, at an interval of half an hour or an hour.

To find out the proper dose for the case is very difficult; not only the age and constitution, but many imperceptible peculiarities and dispositions, besides the nature of the disease itself, make numerous modifications in the effects of this powerful remedy. I have prescribed of opium, as far as possible, effective doses, in many thousands of cases, in particular of irritations of the bronchial and intestinal mucous membranes, and should think the following gradation may be regarded as safely applicable at first in the large amount of ordinary cases, and to be afterwards increased if necessary:—

	Grain.
From the 1st to the 3rd week, middle doses	1-120th
“ 3rd “ 6th “	1-100th
“ 6th “ 8th “	1-70th
“ 2nd “ 4th month	1-40th

After these tender ages the doses must not increase in that proportion, because the development of the organism does no more go on with that rapidity. Thus the full dose for a child two years old may be about 1-20th of a grain, and for a child four years old 1-10th of a grain.

Pulo. Doveri.—That preparation of which I make general use in children's practice contains in ten grains one grain of opium. Of the simple tincture of opium fifteen drops are equivalent to one grain of opium in substance.

It must be earnestly remarked in this place that the action of opium by injection,—that is to say, by the

way of intestinal absorption, is much less constant and measureable than that by the stomach. I have ascertained this by a large number of observations. The state of the mucous membrane of the colon is subject to much more variations than that of the mucous membrane of the stomach; and, besides that, much will depend if, and how long, the injection remains within the bowels, or how much of it has been voided after a certain time. Thus, in two children of a good constitution, both two years old, the same dose given by injection may produce very different results, according to the length of time during which the liquid is retained within the rectum; and for the same reason in the one three drops of the tincture will produce narcotism, whilst in another the double quantity will remain without effect upon the brain. If we can suppose that the injection will be absorbed, we may administer only the double of what we would give by the mouth.

Digitalis, frequently employed as an antiphlogistic, in particular against acute affections of the brain, I have been fully satisfied does not answer that indication. As a diuretic, it must be postponed to many other remedies of the kind; this action of it being particularly inconstant in children. The unique real indication of *digitalis* is the nervous hyperæthiis of the heart, unconnected with inflammation or aneurism. The best mode of administering it is by two doses daily, at the interval of twelve hours. The single doses may be for the third year a quarter of a grain, for the fifth one-third of a grain, and for the eighth year half a grain, which can be considerably augmented. Commonly, too small doses are prescribed.

CASE OF STRANGULATION OF THREE FEET OF THE JEJUNUM,

BY A RENT IN THE MESENTERY, PRESENTING NO SYMPTOMS OF THE DISEASE FOR SEVERAL HOURS, AND THEN TERMINATING VERY RAPIDLY.

By CHARLES BAILEY, Esq., CHIPPENHAM.

Read at the Quarterly Meeting of the Bath and Bristol Branch, March 25, 1852.

HENRY TAYLER, aged 25, was on the 13th of March, 1852, in perfect health; in the evening of that day, after partaking of a hearty supper, he was returning home about a quarter of a mile distance, when at the half way of his return he fell over some large stones which had been carelessly left on the foot-path; he got up, did not feel much hurt, went into an adjoining house, and partook of some warm beer, and smoked a pipe of tobacco; after sitting about half an hour went home to bed, did not complain, but slept soundly till six o'clock; came to his employment a little before eight. Feeling some uneasiness about the bowels, he was induced to seek their relief; this was effected, and urine was also voided. Directly upon this the pain became severe, and he vomited several times; the ejected contents had not undergone digestion, as the food of the last meal of the

preceding day was unaltered. Frequent rigors, cramp, thread-like pulse, cold extremities, and leadened countenance. When I was first apprized of his illness I found that thirty drops of the tincture of opium had been given in a little warm brandy and water, and was rejected. Being ignorant of the fall of the previous night, and conceiving he was labouring under spasmodic colic, I gave him a pill, consisting of two grains of opium and two of calomel; this remained, but still there was no abatement of symptoms. He then related the circumstance of his fall, but said he was sure that would not have anything to do with his present painful condition. I again examined him, could find no tenderness, but he complained of a fulness and tension. Being put into bed, after warm appliances to the abdomen and feet, with doses of the compound spirits of æther and small quantities of tincture of opium, a little reaction took place, yet no abatement of pain, therefore, listening to the entreaties of the poor fellow to do more for him, I reluctantly took away ten or twelve ounces of blood, and he expressed himself relieved. Small quantities of fluid now remained on the stomach. Another dose of calomel only was given, and shortly after one ounce of castor oil; this remained, without any more sickness, which led me to hope the result would have been different, but in about three hours he breathed his last, having endured seven hours severe pain.

The following day my young friend, Dr. W. Colborne, examined the body. No external appearance of injury. On opening the abdomen, more than a pint and a half of bloody serum was found; intestines much inflated; on placing aside the omentum and colon, there was seen a considerable portion (three feet) of the jejunum in a state of mortification, with much discoloration of the connected parts. By carefully carrying on the examination, it was discovered that the mortified part of the jejunum was strangulated, or rather had been so, in a wound or rent of the fold of the mesentery, through which the intestine had fallen, and its functions been destroyed. No injury had been inflicted on any other organs of the abdomen. Other parts of the body not examined.

Hospital Reports.

MANCHESTER ROYAL INFIRMARY.

CASES

Reported under the terms proposed by the Association.
By MEDICUS.

Fungus Hæmatodes after Fracture.

GRACE FAULKNER, aged 39, factory operative, Duckinfield, was admitted into the Manchester Royal Infirmary, under Mr. Wilson, October 10, 1850. She states that on the 16th of August, 1850, she fell down, her arm twisted under her, and fractured both radius