

not be content with a simple incision of the gum, they must take care to divide it freely, so as to cut through all the coverings of the tooth, and thus to remove every obstacle to its protrusion.

The scarification of the gums in this case, however, was not followed by any improvement in the symptoms; the child was then immersed in a warm-bath at the temperature of 100° for ten minutes. There was still no improvement. In half an hour afterwards, with the view of removing any irritating matter which might have accumulated in the bowels, an enema, consisting of four ounces of gruel and two drachms of spirits of turpentine, was administered, but without good effect. Cold sponging of the head was next tried, and two leeches were applied to the right temple; these bled freely, and in half an hour the convulsive twitchings gradually left the right side, but consciousness did not return; the muscles of the left side of the face became slightly convulsed, and the twitchings gradually extended to the whole of the left side; the extremities of the right side remained powerfully flexed, and could not be extended. The child was in this state at six o'clock, p.m., five hours from the commencement of the fit. It then occurred to Mr. Pincott to adopt the expedient which they had, not long since, found to produce such marked effects in a case of hydrophobia, namely, of applying ice along the back of the neck and spine, with a view of calming, by the sedative agency of cold, the irritable state of that portion of the cerebro-spinal axis which he rightly judged to be affected, the medulla oblongata and spinalis, and the happiest results followed. Ice was applied in an ox-gullet along the course of the spine, extending from the occiput to the sacrum. Immediately on its application the breathing became easier, the child sighed several times, the pulse fell rapidly, and in ten minutes the convulsions had entirely ceased. Consciousness was not immediately restored, but as soon as the convulsions were over, the child fell into a sound sleep. Next morning the child was quite conscious, but irritable; he was freely purged with a little calomel and jalap, and left the hospital quite well in the fourth day from his admission.

The result of this case was highly satisfactory, as affording a clear example of the good effects resulting from the sedative influence of cold. He would, however, impress upon them that an application thus made to the region of the irritated nervous centre was less likely to be useful, if the original irritant was not removed or diminished; and, therefore, it would not have been good practice to have applied the ice, unless the gums had been previously freely scarified, and means used to clear out the bowels. Of the value of leeching and the warm-bath in the convulsions of children, he could not

speak so favourably. He thought, as a general rule, depletion in convulsive affections was bad; it tended to impoverish the blood, and to render the system more susceptible to irritating influences; it was only admissible where there were decided indications of inflammatory action. The warm-bath was a popular remedy, and was, he thought, almost always used empirically, and without any definite object. Sometimes it seemed to soothe the patient; at other times, and he thought more frequently, it either did no good at all, or did positive mischief, relaxing and increasing debility. It was, however, an expedient which now and then they might try, and even with benefit; and in such cases it possibly acted by soothing the external sentient surface, whence the calming influence was communicated to the centres.

It had been assumed in this case that the symptoms under which the child laboured, were the result only of a temporary irritation of the nervous centres. What evidence was there that the brain, medulla oblongata, or spinal cord, or their membranes, did not suffer from actual inflammatory disease, tubercular irritation, or other chronic affection? The evidence appeared to him to be derived mainly from the history of the case; the child had been in good health for several months up to the day of his seizure; the seizure was perfectly sudden, and unaccompanied by any marked premonitory symptoms. After the first fit the child enjoyed a freedom from suffering for a little time, and then the convulsions recurred with the same suddenness as before; there was no great degree of febrile movement, nor heat of head, no vomiting, which was so frequent a symptom in children's head affections; and the speedy result of the treatment certainly confirmed this view, for it could not be supposed that, had actual disease existed, the child would have become convalescent so rapidly.

ON THE

HÆMORRHAGIC DIATHESIS.

By JOHN COCHRANE, M.D., Surgeon.

HOWEVER similar animal structures may appear to each other, they are very differently constituted in respect of vital action. No two beings of the same species are organised alike; close resemblances in general arrangement no doubt exist, but strict identities seem to be incompatible with nature's endless, yet harmonious, variety. It is in the minute disposition of those important parts where life is generated and developed, that the organic distinctions occur which graduate the scale of vital power, and furnish the individual susceptibility to be operated upon by the common

agencies of life. Temperament and idiosyncrasy are essentially connected with constitutional organisation, and may be viewed as certain conditions of vital power. Should these conditions be blended with "a morbid disposition," the tendency to its activity will be determined by the organic and exciting circumstances with which it is associated. This tendency to the development of "diseased action" may be inherent, it may be hereditary, or it may be accidentally acquired.

Many instances of apparent health are intimately blended with latent disease. These are more observable where the temperaments are strongly marked. In some the tendency is kept in check by the condition of health and vital influence; in others it gradually emerges from a passive to an active state, and finally overpowers every resistance which the *vis conservatrix* opposes to its destructive progress.

I would not be understood as attempting to account for the presence of diseased action, or the variety it exhibits in different individuals, I fear it is among those arcana of nature which may invite speculation without much probability of a rational solution; I but contend that morbid action is a condition of vital power, associated with the agencies by which matter is identified, and by which it generates and sustains animal existence. I consider it more consistent with the limited capabilities of human penetration to consider subjects as they fall within the range of the evidence furnished by the senses, than to indulge in theories which we cannot intelligibly explain.

Medicine, according to my notions, should be viewed as an inductive science, the propositions being the accumulated observations of various parties, made at different times under different circumstances; the philosophical consideration of these observations will lead to well-defined rational theories, and these again to uniformity and stability of practice.

Impressed with these views I have ventured to make a few remarks, and to record a few facts having reference to a rare and dangerous affection, regarding the nature and treatment of which, unhappily for the cause of suffering humanity, very little at present seems to be known, and which, if it does no more, will at least prove my willingness to add my mite to the general fund of medical knowledge, and perhaps stimulate some more talented member of the profession to greater and better directed exertions.

Amongst the great diversity of "diseased tendency" exhibited in the ever-varying operations of nature in the organisation and maintenance of animal life, there is none more obscure in its origin, or less satisfactory in its history and treatment, than hæmorrhœa from peculiarity of diathesis. I do not think the ancients had any distinct

notion of such a diathesis,* nor do I remember in my reading to have met with an account of a case of it in any author who wrote prior to the beginning of this century. Since that period a few theories have been hazarded, and various modes of practice recommended, but as yet no definite line of treatment has been agreed upon by the profession; nor does it appear to me that the subject has received the consideration from physiologists and medical inquirers which its importance demands.

Mr. Lane, one of the teachers in St. George's School, London, in a communication to *THE LANCET*, on a case of hæmorrhage occurring after the operation for squinting, has some very apposite and curious remarks on the peculiarities and treatment of this affection. He advocates transfusion as a *dernier resort* in cases where it is indicated by great exhaustion and danger from loss of blood. The case he describes happened to be such an one, and I am fully persuaded he saved the life of his patient by that operation.

Mr. Lane arrives at the rather extraordinary conclusion, that "males only are subject to this peculiarity of constitution;" that the father of a bleeder is always free from the disease; that the son of a bleeder is never affected by it; and that the bleeder inherits this diathesis invariably from his maternal grandfather. He enumerates a number of cases in support of his assumption, and amongst other authors he quotes Mr. Ward, of Ewell, who treated a boy twice for serious hæmorrhage from slight injuries, and who had a brother and five uncles afflicted in a similar manner; three of the latter died from a division of the *frænum linguæ*, and one from the extraction of a tooth; but what is still more remarkable, two sisters of the uncles were exempted from the hæmorrhagic tendency, while the male children (five in number) were afflicted with it.

Dr. Otto, of Philadelphia, relates an instance of this disease affecting the males only of a family, as does also Dr. Hay, of Massachusetts; both assert that sulphate of soda, in ounce doses, taken every morning, has in their hands always proved a successful remedy for the removal of the disease.

Mr. Wilson, in his valuable lectures on the vascular system, attributes the hæmorrhagic tendency to a deficiency of contractile power in the arteries, and instances a boy in whose case it proved fatal, whose arteries were not more than half the usual thickness.

* I am not speaking of purpura, or any irruption of blood accompanied by petechiæ in debilitated subjects, but of the tendency to profuse bleedings from slight injuries in patients otherwise apparently healthy.

Mr. Wardrop thinks this inordinate disposition to bleed from slight injuries arises from a deficiency in the coagulating power of the blood; and he is so far borne out in this opinion by Mr. Lane, who in the case of his patient says, "The blood appeared less disposed to coagulate than usual, and so thin was it in consistence, that it resembled a mixture of blood and water as it flowed down the face."

Mr. Lloyd, of Liverpool, after long experience as a surgeon-dentist, asserts that the hæmorrhagic diathesis is not dependent upon age, sex, condition of health, or temperament; and he relates many cases confirmatory of his opinions. He always found styptics, stuffing, and compression sufficient to arrest the most profuse hæmorrhage from an alveolus after a tooth had been extracted.

Mr. Craig, of Ratho, relates a case in the "Edinburgh Journal of Medical Science," of this description which was successfully combated by local styptics and the internal use of wine. This patient, contrary to Mr. Lane's theory, had a son, who suffered from a similar diathesis, and who nearly lost his life from having a tooth extracted. The bleeding in the father's case was venous, but in the son's it was purely arterial.

Mr. Craig relates another case of the kind which occurred in a child seven months old, who was with much difficulty saved from bleeding to death, after having his gums scarified. Lunar caustic had been applied in this case, which seems to have added to the evil; for after the eschar had separated, the hæmorrhage recurred with increased violence.

Dr. Cullen, in defining the pathology of hæmorrhagy, says, that "some inequality in the distribution of the blood occasions a congestion in a particular part; that is, a greater quantity of blood is poured into certain vessels than their natural capacity is suited to receive: these vessels are thereby preternaturally distended, and this distention proving a stimulus to them, excites their action to a greater degree than usual, which pushing the blood with unusual violence into the extremities of these vessels, opens them by anastomoses, or rupture; and if these extremities be loosely situated on external surfaces, or on the internal surfaces of certain cavities that open outwardly, a quantity of blood flows out of the body. Dr. Cullen does not, however, consider this definition sufficiently comprehensive and satisfactory when applied to all cases of hæmorrhage; and he adds, "Active hæmorrhage depends upon an increased impetus of the fluids founded upon a pyrexia, but the foundation of this pyrexia is previous congestion, from which it appears that this congestion is the source of the phenomena."

Without entering hypercritically into the precise meaning of the doctor's definition, I

will at once admit the existence of previous congestion of the capillaries; but I attribute such an effect to the absence of nervous influence in the seat of the disease, and consequent decreased vital action. Owing to this decrease of nervous power, the unresisting vessels in the congested part become enlarged; and those of them which admitted only the transparent and more fluid portion of the blood, now admit the red globules, distending their calibre, and destroying their tonicity: hence hæmorrhages, inflammations, gangrene, &c. Now, in affections of this nature, the object evidently will be to restore the disturbed balance of the circulation, by increasing the vital action, or contractile powers of the congested vessels, by means of tonics and astringents, and to subdue the inordinate action in the heart and arteries; the increase of vital action, or contractility in the diseased parts, brings them up to a resisting par with the propelling power of the heart, and thus establishes the equilibrium of the circulation. Then, and not till then, will diffusible stimuli be indicated.

If I am correct in these views, the internal use of wines and other diffusible stimulants are inadmissible in cases of local congestion, for by increasing the general force of the circulation, the diminished powers of the congested vessels will be still farther overborne until the resistance will be entirely suspended, and, as Dr. Cullen observes, the "mouths of the vessels will be opened by anastomoses, or rupture, and a quantity of blood poured out."

We have a happy illustration of this in the case of a boy, described in Duncan's "Annals of Medicine," who suffered from constitutional hæmorrhage, and who, although using a bottle of port wine daily, conjoined with kino and succus japonicus, continued to sink until vitriolic acid, in doses of five drops hourly, was had recourse to, and his body enveloped in Peruvian bark, quilted between two folds of a piece of cambric, the wine at the same time having been lessened very much in quantity. From this period he rallied, and ultimately recovered.

The agents which control hæmorrhage are ligature, direct compression, the application of cold in various ways, by which the flow of arterial blood is diminished, and time obtained for its coagulation in the extreme vessels, sufficient to resist the impulse of the heart's action. Syncope acts on this principle in arresting bleedings; the same object may be obtained by the chemical influence of vegetable and mineral astringents and acids, metallic salts in solution, &c. Oil of turpentine, alcohol, and various resinous substances, have been used with the view of contracting the skin and subjacent vessels, as have also the actual cautery and escharotics. The application of dry substances possessing little activity, but capable of retain-

ing the blood upon the orifice of the open vessels, until spontaneous coagulation takes place, is a popular and not unfrequently a successful mode of arresting hæmorrhages.

Much discrimination is necessary in the choice of the agent best adapted to all the circumstances of individual cases. In hæmorrhages occurring after extraction of teeth, and where the flow is confined to the alveoli, an unirritating solution of metallic salts, and the plug with compression, I should think equal to any emergency. The plug I would recommend is cork, properly adapted to the alveolus, and left sufficiently large above to secure pressure from the antagonist teeth. If necessary, a groove might be made in the cork to embrace the lips of the gums at their junction with the alveolar processes, and thus secure compression to all the wounded parts. It will readily be inferred, that where the hæmorrhagic diathesis exists, I am no advocate for the cautery or for caustics. In the absence of nervous energy the capillary arteries cease to secrete, the cautery and caustics, therefore, can have no effect except that of chemical decomposition, and which, as in Mr. Craig's case, will add to the evil by denuding a larger surface, and exposing the mouths of a greater number of vessels.

I remember at one period, before my attention had been much directed to this subject, I extracted a molar tooth from the jaw of a flabby, leucophlegmatic man, about thirty years of age, who I afterwards learned had nearly lost his life some years before by a similar operation, the bleeding having continued on that occasion nearly four days. The tooth I pulled out was not difficult of extraction, nor did any considerable hæmorrhage follow for nearly eight hours afterwards, at which time the oozing had increased to an alarming extent. I learned that cold water, the scrapings of down from an old hat, cobwebs, and various other popular remedies, had been resorted to without any beneficial effect. I washed out the socket with tincture of myrrh, after which I introduced a pointed piece of lunar caustic, which I pressed firmly down to the bottom of the cavity, and allowed it to remain in a short time. I then applied a compress firmly over the teeth and gums, and left my patient. About six hours afterwards I was again summoned to attend him, when I found the bleeding still profuse, and the patient very weak from loss of blood. I used the nitrate of silver freely, as on the former occasion; I then stuffed the socket with soft putty, applied pledgets of lint soaked in an astringent lotion once more round the teeth and gums, administered an opiate, bound both jaws tightly together; and on leaving my patient I expressed my uneasiness to his friends, and requested that they would send for me if the bleeding appeared through the compresses.

I had been but a short time at home when it was found necessary that I should return. Appearances had now assumed a dangerous aspect; the bleeding was unchecked; the man's countenance was collapsed, deadly pale, and expressive of great anxiety. His pulse was small and thready, his extremities cold, and his breathing hurried. My own state of mind at the moment was anything but enviable. I tried all the stimulants and astringents I could think of, some with partial and others without benefit. I had no faith in the actual cautery more than I had in the lunar caustic, and it had signally failed. I was hesitating whether or not I should take up the carotid, when it occurred to me that I had used with decided advantage the tincture of the muriate of iron in fungous bleedings. I lost no time in procuring and applying it: the result exceeded my most sanguine expectations. The blood which was effused between the gums and cheek instantly coagulated, and that within the socket was converted into a gluey plug. There was no return of the hæmorrhage afterwards, and the patient gradually recovered his usual state of health. Since the above period I have used the tincture of the muriate of iron in many similar, although much less formidable, cases, and with unvarying success. I have great satisfaction in bearing testimony to its safe and efficient styptic qualities.

Were I treating a case now such as the above, I would in all probability resort to the use of the cork plug, and which, with the aid of such a powerful auxiliary as the tincture of the muriate of iron, would preclude all anxiety in my mind as to the result.

I am of the opinion that we have much to learn regarding the changes which the blood undergoes in disease, and the relation which these changes bear to certain morbid conditions of the constitution. Modern researches tend to prove that cancer, fungoid disease, and the whole tribe of malignant growths, are but depositions from diseased blood. As this fact becomes more obvious by deeper research, so will our pathological knowledge and remedial resources increase, and the subjects of idiosyncrasy and diathesis, now so enveloped in mystery, be elucidated, and the "tendency to morbid action" more easily obviated.

Edinburgh, Lawn-market,
March 12, 1842.

SCROFULOUS CORNEITIS,

SUCCESSFULLY TREATED BY TURPENTINE.

By HENRY OBRÉ, Esq., Surgeon.

THERE are few diseases of the eye that are more tedious in their progress, or more uncertain in their results, than scrofulous corneitis;