this case, as in the rapid removal of a bubo, depends on the actual condition of the frame. The tonic or astringent circulating in the blood, in the first hours of diarrhoea, aggravate the disorder; not so the mercurial; but when the affection is chronic, variable, or ready to decline, the opium or kino is much more flattering to the skill of the physician. Even wine and a walk (well clad) shall put an end to certain cases of gripes and looseness.

The first effect of alcohol on the capillaries in which it circulates may be of an astringent or tonic kind, to which succeed arterial delay and increased cardiac impulse. A strong, and at the same time equitable, distribution of blood with but tardy diminution by excretion or nutrient deposit is for a time quite consistent with a sense of vigor, and this depends more on the state of the whole than on that of a part of the brain. As the venous blood gets diluted or depurated by secretion (or both), capillary relaxation should succeed, with as much nutrient deposit as the blood can spare, and as much of different secretions as there are specific matters in the blood to determine. Lastly, comes the hungry need of renewed stimulus. Palor and tremor are not merely nervous. Every fibre and tube is wrong for lack of due nutrition and support.

The effects of opium resemble the above; they are by no means confined to the brain. The more these agents act universally, the less is there danger from the oppression of any one organ. A large juicy frame, a copious digestion, abundant activity, may save the kidney or the liver from being especially acted on and overwhelmed. With alcohol and much clothing a coachman may protect his kidneys from being overtaken by cold; but when excessive and deteriorated renal function has commenced, what clothing will prevent alcohol from aggravating the evil? Still we dare not disregard the wants of all the organs which long habit may have rendered it imperative to allay.

In delirium tremens it might seem that the abrupt diminution of habitual stimulus leaves the circulation and excretory acts devoid of indispensable support. Depurations fail, and digestion also, and the body is more affected by cold and the like. We need not wonder, then, if inflammations, effusions, or delirium should supervene.

The blind outcry against spirits, is but very partial wisdom. The poor cannot buy wine, and they need support. There may be no more precious and generally required prescription than a dram to a crude meal or a basin of gruel. If any would exclaim about the danger of certain truths, let them be as busy as they will to prove it. Shall we make the weak suffer more, for fear lest the strong should suffer as much? A poor sickly, laborious, mother has "taken the pledge," and she must keep it, but in our judgment a good deal of rum would not have distressed her so much, nor have destroyed her so soon. We give her tinctures and opium, and her duties are made easy, and her heart should be thankful. The pride of abstinence is often but another intoxication.

Nutrients.—These are direct or indirect. The direct consist in good food, to which are essential natural digestion, circulation, and excretory depurations. The

indirect are those which restore health either by retarding undue secretions or by stimulating tardy emunctories.

Moderate degrees of pressure, friction, mechanical exertions, or even secretory or nervous excitements, lead to increased capillary supply of parts; and if the blood abound in the specific nutritive matter required by bone or gland, increased development results, or atrophy, or worse, may be the consequence of humoral deficiencies.

Bodily exercise, kneading, and stretching every part (shampooing), induces an universal call for nutrient and secretory changes, and thus is a powerful means of affecting the constitution of the blood. In moderation, it invigorates and equalises all function. In excess, it exhausts. With depletion or debility, it only aggravates the evils. With undue repletion, it oppresses the system, or rather certain parts, physically. In particular diatheses, or different cases of local affections, exercise acts in various ways, humorally, or physically, or otherwise, which the physician should consider carefully if he would employ it safely and well.

To close our sketch for the present, we may sum up various changes in the blood which affect the condition and action of all the organs of the body—consistently with health, the essence of disease, or inducing recovery, there are humoral agents. The right use of them must form a great part of the resources of the physician, who would not foolishly interfere with the intricate œconomy of the living body in the season of difficulty.

36, Bedford-square.

CASE

OF

ASPHYXIA FROM HANGING, TREATED BY BLEEDING.

By E. J. SHEARMAN, M.D.,

Licentiate of the Royal College of Physicians in London, &c.

On the 16th ult., at half past one o'clock, p.m., a very powerful, athletic man, named John Williamson, with his wife, were committed to Wakefield, by Henry Walker, Esq., to take their trial at the next quarter sessions, for stealing a silver spoon from the house of the Rev. Mr. Speare, of Kimberworth. At two o'clock the same day the man was found by the gaoler's wife, apparently dead, hanging by his own handkerchief to the grate of the prison; only forty inches from the ground. He was cut down. I saw him half an hour after the occurrence, and recovered him from the immediate effect of his suffocation, but he died at nine o'clock the following morning, without any sufficient evident cause. An inquest was held on the body on the following Saturday, and a verdict of temporary derangement returned.

When I first saw him he was apparently lifeless; he neither breathed, moved, nor had any perceptible circulation. He was lying on the straw bed in the prison, his face and neck much swollen, and of a blackish color, the ecchymosed mark of the cord being immediately below the thyroid cartilage, his fingers bent, and hands nearly clenched. I immediately had his head raised, the windows and door opened, and opened a vein in his arm (in preference to

the jugular vein, because the room was very dark and inconvenient for that operation), put his arm into hot water; a little blood flowed, which gradually increased in quantity as he became warmer; in four or five minutes he began to sob, and I let him bleed until I could feel the pulse beat at the wrist, and the pupil of the eye contracted completely on the application of a lighted candle. I then stopped the bleeding. As he so soon began to breathe, there was no ammonia applied to his nostrils. His breathing remained stertorous. I poured some hot brandy and water into his stomach, applied warmth to his body and extremities, kept his head raised, and left my assistant with him at half past three o'clock, to see that he had as much fresh air and warmth as well as every other attention that the nature of the situation would allow.

At five o'clock I saw him again, and remained till half past six; he had then rallied very much; his pulse had become firmer, but quick, 130; his head was very hot; he was exceedingly restless and unmanageable, having very violent convulsive motions in both arms and legs, and required more than six men to hold him on the bed; his breathing was still stertorous, and he could not swallow. I put him on a strait-waistcoat, had his head shaved, showered it with cold water, and applied an evaporating lotion afterwards, and gave him some croton oil on his tongue, which he kept within his teeth. My assistant remained with him until ten o'clock. I saw him again at eleven, and remained until half past twelve. His head was then excessively hot, eyes injected with blood; he looked wildly round the room, and was so excited and strong that the strait-waistcoat did not keep him in order. The croton oil had operated once on his bowels; his pulse was very quick, small, weak, and jerking, or I should have bled him again in the arm or jugular vein; twenty leeches were applied to his head; I continued the cold affusion and cold lotion afterwards, and kept him as warm as possible everywhere else. I left him, fully expecting, there was so much congestion in the brain, it would end in phrenitis or meningitis by morning. Early the following morning my assistant saw him; he had then spoken several times, was calmer, but, very suddenly, he became exhausted, and died at nine o'clock.

In this case I consider there was both suffocation and apoplexy; so much pressure was made by the cord round the neck as to prevent inspiration, so that immediately the lungs, right side of the heart, and veins would be congested; part of the venous blood sent to the lungs through the pulmonary artery would be oxygenated during the first inspiration, but, when the next systole of the heart took place, if any blood passed into the left auricle by the pulmonary veins, it would be venous, and, if thrown out by the left ventricle, would act as a poison to the brain, and prevent the respiratory nerves from exciting the muscles of respiration; thus, together with the pressure in the nerves and arteries in the neck, producing asphyxia. At the same time the blood was prevented returning from the brain, in consequence of the ligature round the veins of the neck, thus producing apoplexy.

I, therefore, removed all pressure from the neck; encouraged the return of blood by raising the head

and chest; removed the immediate congestion from the lungs and brain, by drawing blood from a vein, and kept that flowing until the muscles of respiration were excited to action sufficiently to allow the air to change the venous into arterial blood, evinced by the activity of the brain. When respiration was established, it was my next duty to relieve the congested state of the brain, which I endeavoured to do by keeping the raised head (which was very hot) as cool as I could, and the rest of the body warm, relieving the congested state of the veins by local bleeding, and stimulating the mucous membrane of the bowels by croton oil. Still the violent convulsive motions continued, which I think rather tends to point out the immediate cause of death to have been effusion on the base of the brain.

I immediately applied to the coroner for permission to examine the body, stating it would be a most interesting inspection; and on the inquest I most distinctly said I could not account for the immediate cause of death at the time it took place; but I am sorry to say he would not allow me the privilege. On the inquest he said that he had been informed by an eminent practitioner in the neighbourhood that the man ought to have been bled from the *temporal artery* instead of a *vein*; and there is a current report circulated that the man ought not to have been bled at all—in fact, that he was bled to death!

To satisfy myself as to the propriety of my mode of treatment, I took the earliest opportunity of reading the case before the Sheffield Medical Society, and put the following questions to them:—

1. Whether it would have been proper to have opened the temporal artery?
2. Whether there appeared any reason to suppose too much blood had been abstracted?
3. If any better mode of treatment could have been adopted?

To all these questions I received a satisfactory reply. But as this is a case, the treatment of which does not admit of much time for reflection when it occurs, I may be excused for endeavouring to prove that the mode which was adopted in the present instance was according to the most approved authorities.

It is generally acknowledged that the quantity of blood circulating within the cranium is nearly the same under all circumstances, and that the pathological condition as to *plethora* consists principally in the want of balance between the arterial and venous, the arterial blood giving the natural stimulus to the nerves of the brain, when sent in due quantity; the venous, in excess, depriving the brain of that stimulus. My old and respected preceptor, the late Sir C. Bell, says,* “The head and neck may be surcharged and bloated with blood, while the brain will preserve its natural condition as to the quantity of blood in its vessels. All qualities of life are maintained through the active circulation of arterial blood in the substance of the organ. The veins of the neck being pressed upon, as by violently turning the head, by inverted position, or partial strangulation, apoplexy is induced. Here it is not an accumulation of blood in the brain, but an interruption and stagnation, which,

* On the Questionable Practice of Bleeding in all Apoplectic Affections, and the different effects of Drawing Blood from the Artery and from the Vein. By Sir Charles Bell, K.H., &c. 1841.

equally with the rupture of a vessel, influences the brain, and diminishes the nervous energies. On the examination of the brain in such cases, the veins of the brain are turgid to an unnatural degree, accompanied with a corresponding compression of the arterial system. The blood is accumulated in the veins, and the circulation arrested, and the activity of the arteries diminished proportionally; we see, therefore, how sense and motion are diminished, and at length life extinguished, without rupture of a vessel. If this condition of the circulation could be with precision ascertained, bleeding from a vein would be preferable to opening the temporal artery." In this case this particular condition certainly existed, and I, therefore, bled from a vein.

In Abercrombie's celebrated work on the brain,* page 202, &c., he gives several instances of what he calls simple apoplexy from strangulation, which were recovered by bleeding from a vein; and also many cases of apoplexy with convulsions, which were apparently recovered by the same means, and shortly after died, without leaving any trace of disease behind. At page 286, he says, "In the treatment of apoplexy our remedies are few and simple. Those in which our chief reliance is to be placed are large and repeated blood-letting, active purgatives, and cold applications to the head, aided by an elevated position of the body, cool air, and the absence of all stimuli. The first bleeding should be from the arm. There are no symptoms which characterise a distinct class of apoplectic affections requiring any important distinction in the treatment; or, in other words, a class which, in their nature, do not admit of blood-letting."

Paris and Fonblanque, Drs. Ryan and Beck, in their works on medical jurisprudence, and Dr. Roget, in the "Cyclopædia of Practical Medicine," all recommend bleeding from a vein in cases of hanging.

There is a difference of opinion as to whether the jugular vein or one in the arm ought to be opened in asphyxia from hanging, which I will not enter into here. Had this man been situated in a favorable situation for opening the jugular vein, I should have done so at first; but I doubt whether he would have bled so well from it, as it was not until his arm was put into boiling water, and the muscles brought into action, that he began to bleed at all.

As to the charge of the quantity of blood being taken too large, I shall merely state that, four hours after he was bled, he had so much muscular strength left, that six men could not hold him on the bed, and, if there is anything in the treatment of the case I at all regret, it is that, when those violent convulsions came on, I did not bleed him from a vein again, in spite of the peculiarity of his pulse.

The common treatment for asphyxia, viz., exciting artificial respiration, &c., could not in this case have been successful; the right side of the heart and lungs must have been gorged with venous blood, as well as the brain; and, before that congestion was removed from the brain, the respiratory nerves could not act.

I trust that I have now satisfactorily proved that, in asphyxia from hanging, bleeding from the temporal artery would kill by depriving the brain of its proper

stimulus; bleeding from a vein, by taking off the pressure from the cerebral arteries, and relieving the congestion in the lungs, would stimulate the brain, excite the respiratory nerves, and restore animation; and that no other mode of treatment would be likely to succeed until this has been accomplished.

Rotherham, December 2, 1843.

EFFECTS OF A LARGE DOSE OF QUININE ADMINISTERED BY MISTAKE.

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—Since all facts tending to illustrate the pathogenetic action of remedies are valuable, and more especially so in the case of those whose *modus operandi* is little understood, I make no apology for transmitting the following brief case for insertion in your valuable Journal.

In November, 1841, a young lady, aged eighteen, of a delicate constitution and nervous temperament, was under the treatment of a medical friend of mine for severe hysterical symptoms. Almost every evening she had repeated fits—epileptic in appearance, although decidedly hysterical in character. The remedy administered was quinine, in combination with sulphuric acid; she began with six grains per diem, which was soon increased to ten, and afterwards to twenty. When she had been taking the medicine for about a fortnight, she received a six ounce bottle, containing six drachms of quinine in solution, with an ounce and a half of the dilute sulphuric acid; of which she was directed to take one teaspoonful at a dose in a wineglassful of water. Not regarding the directions, however, she poured out a wineglassful—about one-third of the bottle—and swallowed it.

Her first impression was one of extreme acidity of the mouth, and a most disagreeable sensation about the teeth. This was followed by nausea and extreme giddiness and tendency to stupor. Her friends, believing that she had taken a narcotic poison, insisted on making her walk up and down, after the manner generally recommended for narcotic poisoning. After this had been kept up some time, the stupor abated, and she passed into a state of semi-consciousness, with the feeling as if she was obliged to keep moving in spite of herself. She was intensely thirsty, and drank a great deal of water. But all the bad symptoms gradually subsided without medical aid, and the epileptic fits which were the occasion of the treatment did not appear for a very long time afterwards. Her catamenia were brought on immediately.

I am, Gentlemen,

Your obedient servant,

JOHN M. DEEBE.

7, Market-street, Mayfair,

Dec. 18, 1843.

EXCISION OF INTERNAL PILES.

If the surgeon is determined to excise internal piles, the only safe way of doing so is as follows:—When the tumor is protruded, the base of it should be transfixed by a long needle, which will prevent it from returning into the anus. Then it may be cut off; and the cut surface being exposed to the air, will not bleed so profusely; or if it does, it is easy to apply cold, astringents, or ligatures.—*Mr. Druitt.*

* Pathological and Practical Researches on Diseases of the Brain and Spinal Cord. By John Abercrombie, M.D. Third Edition.