PART III.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

PRESIDENTIAL ADDRESS.

*On the Management of Cases during the Period immediately following Operation.** By SIR THORNLEY STOKER, M.Ch., R.U.I., *Honoris Causâ*; President, Royal College of Surgeons, Irel.; Surgeon to the Richmond Hospital and to Swift's Hospital; Fellow of the Royal University.

WHEN I last had the honour of addressing you from this chair, I took occasion to apologise for speaking on a vulgar instead of an obscure or novel subject, and I am again disposed to use my opportunity to a like effect. I do not presume to address myself particularly to the more senior portion of my audience, but there are a large number of the younger members of the Academy present, and to them I venture to say something about a subject which exercised me much in my younger days—which does so still—and which is important because of its very commonness, and worthy of attention because it is sometimes overlooked.

I refer to the management of patients during that oftentimes critical period between the performance of a surgical operation and the moment at which, the risks consequent on it having passed, the patient becomes free from immediate and non-particular danger. This is the period occupied by two conditions of depression common to any, or all operations, and therefore to be considered by themselves, apart from special dangers proper to individual surgical procedures. They are—

a. Shock.

b. Exhaustion, consequent on vomiting.

* Address at the opening of the Surgical Section of the Royal Academy of Medicine in Ireland, November 8, 1895.

They may not be present, or being present, may vary in duration from a few minutes to several days. Their intensity cannot be foretold; it may be but slight, or may be grave even unto death, and nothing in the condition of the patient, the nature of disease, or the character of operation can afford any reliable evidence as to their possible severity. They may be serious in those who are vigorous, and unimportant in those who are weak; the very young and the aged may suffer from them but slightly, and persons of middle life may be in peril; they may follow the most trivial operation, and be absent from the most severe.

Those who have had experience in surgery know how often they meet surprises in the immediate consequences of operation. Sometimes the experience is the pleasant one of finding the treatment borne better than was expected; sometimes it is the sad one of danger following an operation when it was not looked for. The lesson we learn is, never to neglect during and after operations every detail which can lessen danger by diminishing the chances of shock or exhaustion, and which can assist subsequent reaction.

The causes which tend to produce shock are numerous, and, for the most part, obscure. There are many states of enfeebled health, of particular debility, and of other recognised conditions which predispose to it. But there are unseen, and often unexpected circumstances, which may lend themselves to its production. Operative measures should, therefore, never be approached without the most careful general examination of the patient, and the most thoughtful consideration of his physical position. It is impossible to formulate exact laws in this direction; these perceptions are largely matters of experience, and only time and clinical study can develop them. But from long observation we know that such considerations of the general state of a patient about to be submitted to operation are often overlooked or disregarded, and I suppose most of us have had bitter regret of our want of perception.

In addition to general matters concerning the patient, there is one particular which is proper to the surgeon, and in which great error is common, I refer to the undue prolongation of operations. Two circumstances have, in

our generation, lent themselves to this; one is the facility afforded by the use of anæsthetics; the other the extreme care, conservatism, and attention to detail, begotten by the introduction of antiseptic methods. There is no one circumstance which so tends to the production of shock and to the exhaustion produced by subsequent vomiting as prolonged anæsthesia. I have had this impressed on me by severe lessons, and I am satisfied that we should watch ourselves very closely in this direction, and sacrifice detail and conservative measures in instances where they demand the unsafe prolongation of anæsthesia. I can look back on cases where I regret the time spent on an operation; for instance, the only example of elected operation for the radical cure of hernia which has ever proved fatal in my practice, was one in which, in my anxiety to conserve the testis in an extremely complicated rupture, I prolonged the dissection to such an extent as to produce shock from which the boy never rallied. I know now that had I removed the organ I could rapidly have concluded the treatment and saved the patient.

What I have said of the production of dangerous shock is largely true of exhaustion immediately following operation. Given the conditions, known and unknown, which predispose some patients to it more than others, prolonged anæsthesia with its often attendant vomiting, is its most usual provocative. We will generally see post-operation vomiting proportionate in severity and persistence to the duration of anæsthesia.

So much for causes of shock and vomiting; what of the means of avoiding them, and of relieving them if they occur? It is a truism to say that prevention is better than cure, and it will be seen from what I have said that a due despatch in the performance of operations, and a consequent shortening of the period of anæsthesia is the most important direct measure to attend to. To an audience like this I need not elaborate this part of my subject; indeed, I could not if I would, for there are a hundred various conditions and circumstances which must guide us, and their knowledge and application are among the matters which make the difference between one surgeon and another, and which lend themselves to our successes or contribute to our failures.

Shock and vomiting are so much due to the same causes, and so subject to the same remedial measures, that it is difficult to consider them apart. I have learned to rely on three agents only for the relief of shock—

- a. Heat,
- b. Alcohol; and
- c. Morphia or opium.

Concerning the first of these, we generally find that if the surface of the body can, by the use of hot applications, be brought to a wholesome warmth, the danger has been overcome. If to the use of hot water, contained in bottles, or, better still, in small indiarubber bags, we add rubefacient applications of mustard to the extremities, about the region of the solar plexus, or over the heart, we have a valuable armament for the inducement, not only of heat, but also for the production of a physiological stimulation.

If these measures fail, or response to them is too slow, alcohol must be resorted to. It should be given by the rectum, not only because vomiting may exist, or may be induced by the introduction of stimulants into the stomach, but also because when shock is present the stomach has little or no power of assimilation. The possible necessity for rectal stimulation and alimentation after operation is one of the reasons why the bowel should always be thoroughly cleared before any procedure, however slight, in which anæsthesia is to be employed.

Failing by these measures to induce reaction, opium or morphia has to be resorted to. If rapid effect is sought morphia is the most useful agent, and it is also that which best controls vomiting. But where there is no vomiting, and where the stimulating effect of the drug is our chief aim, opium itself is to be preferred; it must be given by the rectum. No rules can be laid down for the dosage in these cases beyond the two points that are to be borne in mind—first, that opium is tolerated in large quantities by persons suffering from shock, very much as those bear it who have lost much blood; and second, that it must be given intelligently, that is to say, given watchfully, dose following dose, until the due effect is produced. The value of morphia given hypodermically, or of opium administered by enema in all cases of depression

due to shock, cannot be overstated. I can look back on lives lost after operation from shock and exhaustion, which greater clinical experience and more courageous use of morphia or opium would now enable me to save. If it be sought to study the effect of opium as a stimulant, it cannot be better seen than by watching its effects in the shock and collapse following extensive burns. I have to thank the help afforded by modern nursing development for much wholesome change of opinion in these matters. It has only been since the introduction of trained women to the bedside, with their watchful intelligence and careful skill, that I have learned properly to deal with cases after operation. That intuitive faculty, amounting to what used to be miscalled an "instinct," and which is the special property of women, finds its best expression in the study and management of difficulties like those I speak of.

Of the treatment of the usually more persistent condition of vomiting, with its attendant exhaustion, much need not be added to the limited list of measures employed in the treatment of shock. Warmth, rectal stimulation, and the hypodermic syringe again find their use. If to these I add rubefaction, or occasionally limited blistering over the stomach, I have enumerated all the means I find most excellent. The host of drugs recommended to check vomiting, are, in my experience, worse than useless; they are not only ineffectual, but they add seriously to the gastric disturbance. One measure, introduced of late, we are trying in the Richmond Hospital. I mean the use, for some hours after operation, of a mask charged with vinegar. We are not yet in a position to speak definitely about this treatment, but it seems to give promise of success in cases where chloroform has been the anæsthetic. The rationale of its action is simple; the chloroform which is exhaled by the lungs is decomposed during expiration into chlorine and formic acid. The chlorine, by its irritation of the trachea and larynx, is probably the cause of vomiting, and being taken up by the acetic acid, is rendered harmless. But so far as present experience carries us, the hypodermic use of morphia is the cardinal remedy for the species of vomiting of which I speak. It must be used intelligently, fully, and fearlessly, and will

exercise its effects both as a stimulant and gastric sedative far beyond those of any other remedy.

If it be conceded that it is useless to introduce stimulant or aliment into the stomach of a patient suffering from shock, it will be granted that it is not only useless but improper when vomiting is present; and here a previously-cleaned rectum serves its owner well. Stimulant associated with such nutriments as can be readily absorbed, should be periodically introduced. It is generally found that vomiting any more than shock does not persist with a warm surface, and therefore the three remedies I have indicated should be employed in the same sequence as in shock; first, heat; second, rectal stimulation and nourishment; and tired, morphia.

The distressing symptom of thirst is one which gives great trouble. There is nothing I have learned to discredit more thoroughly for the relief of thirst than ice. It increases thirst both directly, and by the induction of vomiting. The emesis it produces is due to the quantity of water the sucking of ice insidiously introduces into the stomach. Nothing should be put into the stomach in these cases; so that ice is not only useless, but hurtful. Thirst is best relieved by frequent rinsing of the mouth with hot water, and by the occasional introduction of two or three ounces of warm water into the rectum.

In what I have said, I have avoided speaking of details and methods; I have remembered that although some of us are younger and less experienced than others, all of us in this room are educated in the factors of surgical science, and I have therefore tried to be suggestive rather than didactic, and to avoid details except in so far as they were necessary to the elucidation of principles.

If I may reduce to formulæ the matters I have referred to, I would put them thus:—

1. That the tendency to prolong operations must be carefully guarded against, as it is a grave cause of danger.
2. That in the treatment of shock and vomiting following operation, we get no help from the stomach, and must rely on the rectum as its substitute.
3. That heat, alcohol, and opiates are our best remedies;

and that the latter are well borne, and must be intelligently used to their full effect.

4. That drugs of the class ordinarily used to check vomiting are of little or no use in the cases under consideration.

5. That ice does not relieve thirst, and does harm by introducing water into the stomach and so provoking vomiting.

SIMARUBA IN DYSENTERY.

For dysentery and summer diarrhœa Dr. Ihle recommends the following: R.—Decoction of simaruba, 170 grammes; cognac, 10 grammes; mucilage of salep, 10 grammes; tincture of opium, 0·5 grammes; syrup of orange peel, 25 grammes.—mix. A table-spoonful every two hours. The treatment should be preceded by a dose of castor oil.—*Les Nouveaux Remèdes*, 1895, No. 21.

OINTMENT FOR BURNS.

DR. HAAS prescribes the following for burns: R.—Aristol., 5 to 10 grammes; olive oil, 20 grammes; vaseline, 40 grammes; lanoline, 40 grammes.—make an ointment.—*Allg. Med. Cntrb. Ztg.*, No. 72.

THE OPIUM HABIT.

MR. V. BALL, M.D., recommends (*Medical News*, Philadelphia, LXVI., 26) the sudden and complete withdrawal of the narcotic without any other medications as the best treatment of the Opium habit. He concludes:—"Six cases have been treated by me in this manner, and although this is too small a number to draw conclusions from, yet it seems that the complete withdrawal of the drug, without symptomatic or dietetic treatment, is followed by as speedy and satisfactory results as by any other course, and the impression made by the short serious illness is not soon forgotten, and has a mental effect, which symptomatic remedies would only tend to weaken. In three of the cases the patients were much weakened on entrance, yet the danger of collapse was not encountered. In several cases in which the drug has been gradually withdrawn and the emesis and diarrhœa treated with other medicine, the suffering, though not so acute, was prolonged, and the desire persisted for a much longer period. I realise that such a treatment as is here recommended can only be well carried out behind iron bars, but hospitals for treating victims of the opium-habit are usually provided with the proper means of restraint."