proposed a swim in the lodge* on the grounds connected with his house. To this he readily agreed, adding that perhaps it would put an edge on our appetites for lunch on such a hot day. Situated practically on the side of a hill this lodge is about 150 yards long by 10 or 12 yards broad. Its depth varies from a few inches on its upper side to 6 or 7 ft. near the embankment. It is supplied by a stream from the highlands above and by springs in its own depths. By reason of these springs its waters are usually cold. I plunged in on the deep side at one end, and swam strongly for about half the length of the lodge, side stroke. I stood up here in about 4 ft. 6 in. of water to listen to the watchman say that he was about to run the lodge dry, as a portion of the containing wall was giving way and required repairing.

I noticed here that the top and back of my head ached considerably, and that I was giddy. The giddiness did not alarm me, as I have felt giddy many a time after a prolonged swim on my back, and I know of similar experiences in others. I swam now in the opposite direction on my back, and at every stroke the headache became more severe, until it was almost unbearable. I assumed the breast stroke, and kept my head out of the water altogether, which somewhat mitigated the headache but during this time there occurred the strange part of my experience. I became very drowsy, muscular effort was feeble and sluggish, just like the slow movements of one half asleep, and, worst of all, a pronounced indifference to everything seemed stealing over me. In fact, I simply felt like letting my head fall forward and going to sleep. I slowly reached the bank, and after resting with a hold upon it for a short time I clambered out with considerable difficulty. I was in the water only for a few minutes, yet I felt chilled. The giddiness passed off shortly after dressing. I mounted my bicycle and slowly rode home, a distance of about a mile. I partook of a fair meal about 2 p.m., and as the headache persisted rather severely I lay down and directly went fast asleep. On awaking an hour later the headache was gone, and I felt as well as usual, so much so that I played and enjoyed two hours of hard tennis before 6.30 p.m.

This set of symptoms which I have endeavoured to portray is evidently connected with disturbance of the circulation of the brain, and is probably of an anaemic rather than a congestive nature. The vertigo suggests anaemia of the cerebellum and the cold water as the principal cause, since the colder the water and the longer the back of the head is under water—as, for instance, in swimming on the back—the more pronounced is the vertigo. The drowsiness, the sluggish muscular efforts and indifference to surroundings are probably to be ascribed to anaemia of the cerebrum, and are the precursors of complete unconsciousness. Hallucinations in respect to surroundings might conceivably have supervened upon the indifference followed by submersion and fatal consequences. To put it briefly, the swimmer simply loses consciousness from cerebral anaemia—in other words faints, goes under, and, but for immediate assistance, must inevitably perish. This explanation is probably nearer the truth than that with which we are so familiar at this time of the year—that is, “he was seized with cramp and sank.”

What are the causes that may be contributory to this end? Pathologically aortic disease and cardiac dilatation, either from obstruction or excessive beer drinking, are probably causes of the gravest importance, and no one suffering from any of these complications should ever risk himself in deep water. But, apart from disease, there are several other conditions not generally regarded as pathological which will contribute to death from drowning. I should instance as important in this category prolonged and severe muscular effort from racing, cycling, etc., even if followed by a short rest preparatory to swimming, and flatulent dyspepsia. Both of these circumstances may materially interfere with the heart beat—the one from exhaustion, the other from pressure; and when to those a plunge into cold water with a probable increased strain on the heart from swimming, together with the greater effort necessary in breathing, is added, the impulse of the heart may be so enfeebled as to fail in supplying the brain with the necessary quantity of blood.

In my own case—and I do not suffer from aortic disease or cardiac dilatation—probably the cycling together with the hot weather had produced a certain amount of exhaustion, although it was not perceptible to me when I entered the water. Besides, there was very little food in my digestive

system, for I had partaken of a very light breakfast, and, thanks or otherwise to a strong seidlitz powder earlier in the day, little or nothing remained of the previous day's food. I have noticed that one does not always experience the same comfort or pleasure after bathing, for some unexplained reason. Many a time I have seen swimmers and others emerge from the water looking ghastly and feeling rather sick and ill. Eructations are a great relief in those circumstances and are followed by marked improvement of all the symptoms. My stomach must have been empty of food, as it was over four hours since breakfast, but whether the stomach was distended with gas or not I do not at this moment remember, though I am willing to believe that there was an accumulation of wind.

CONCLUSIONS.

All those who are in the habit of swimming in deep water should from time to time submit themselves for medical inspection, even if they are supposed to keep themselves always in condition by uninterrupted swimming exercise all the year round. Especially is this important for those who indulge in open-air swimming only, during warm weather, perhaps restricted to the short summer holiday at the seaside. This class cannot have “worked up the necessary muscle,” to use a cycling phrase, for a prolonged swim, and any attempts at such a feat might easily result in disaster. By submitting to medical inspection any cardiac affection would be detected, while at the same time a suitable inquiry as to the state of the digestive system would elicit any facts pointing to atony of the stomach walls with consequent distension by gas. Atony of the stomach is usually associated with a general atonic state; and although cold bathing is eminently beneficial for this condition, any attempt at prolonged swimming is a positive danger.

It should be the duty of parents to ascertain if their children who are fond of swimming are perfectly sound and in good health, so that they might give the necessary restraining counsel to lads of daring, should circumstances demand it.

To enter the water with a full stomach is probably as dangerous as with an empty one, though this may be a matter for doubt. The happy mean, say about two hours after breakfast or lunch, is probably the best time to undertake a good swim. I should also certainly disapprove of swimming in cold water on any occasion in which the intestines had been emptied by a purgative and the circulation probably depleted thereby. In this instance we have a low-tension circulation, especially if accompanied by a fast of several hours, and sudden immersion might conceivably cause fainting with serious results. Instruction in what one might call the physiology of bathing should be considered indispensable to the members of every swimming club, and especially to all boys and girls who are learning the art. Suggestions, perhaps, rather than rules might be indicated which would prove serviceable for the purpose of instilling in the young a knowledge of the conditions favourable and unfavourable to indulgence in the exercise of swimming.

REMARKABLE CASE OF WOUND OF THE ABDOMEN, WITH PROLAPSE OF THE LARGE INTESTINE: RECOVERY.

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BY

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On Friday, May 26th, 1905, A. C., aged 59 or 60, was discovered lying on a footpath leading through a field of barley adjoining the Gibraltar Golf Club course at Campamento. He was apparently in a moribund condition, suffering from shock caused by a wound of the abdomen received in an affray; his clothes were blood-stained, and there was a cut in his trousers, on the removal of which a mass of intestine was found to be protruded through a wound in the left flank. There was some oozing of blood, and the clothes in contact with the bowel were anything but clean. The man was evidently very poor, and looked at least 70 years of age, and was nearly blind.

Assistance was sought at the Polo Club, situated about a quarter of a mile away, and a bed with a wire mattress was obtained from the village, and on it he was carried to the inn.

On arrival he was placed in an outhouse to which chickens and other animals had access. A surgical aid box was next procured from the Polo Club, which was some 300 or 400 yards off, and this was found to contain the following articles:

* A small reservoir common in this neighbourhood, and used for industrial purposes.

Flannel roller bandage, unbleached calico, cotton-wool, iodoform, carbolized catgut ligatures, boric acid done up in 1-drachm packets, and some rusty surgical needles. The needles were soon polished with emery cloth, and then boiled; some of the calico—for use as a drain, as will be shown later—was boiled, and an abundant supply of boiling water and water which had been boiled was soon ready.

Surgeon Cock, who also happened to be playing golf, arrived and assisted to wash and return the bowel; the latter, which was about 4 ft. in length, and fortunately uninjured, had escaped through a wound $2\frac{1}{2}$ in. in length, horizontal in direction, situated in the left inguinal region, with its outer extremity just internal to the anterior spine of ilium, exposing Poupart's ligament.

Each portion of the gut was most carefully washed with boiled water, and returned into the abdominal cavity, a drain composed of the sterilized calico being inserted, and the wound sewn up with "blanket-stitch" sutures passing through the whole thickness of the abdominal wall (without needle-holders or forceps it was impossible to suture the muscles apart from the skin, but this was done on a subsequent occasion). Sufficient space being left for the drain, the wound was bathed with a solution of boric acid, and covered with a pad of cotton-wool sprinkled with iodoform, kept in place by a broad flannel roller bandage. The time which had elapsed from when he was injured to when the intestine was returned could not have been much more than one hour, or less than fifty minutes.

The patient, who seemed moribund when first seen, rallied shortly, and bore the operation of returning the bowel and suturing the abdominal wall remarkably well; in fact he had recovered so much by the time that this was completed, that he was able to express his gratitude for what had been done. He was given some opium to allay the pain and keep the bowels at rest, and written instructions were left with a man who could speak English as to the necessity for keeping the patient absolutely quiet, and that he should only be given milk or water in the smallest possible amounts so as to moisten his lips. The injured man's home was in the village of Campamento, some 400 yards from the inn, and whether the innkeeper was desirous of getting rid of him, or the friends were anxious to get him home, is uncertain, anyhow despite the written orders he was moved that evening, and without any ill-effect.

After-progress.—He was visited by us next day, May 27th. He had passed a quiet night, free from pain, but had only slept for about three-quarters of an hour. Pulse 80, somewhat irregular and intermittent; temperature 98°. The wound was bathed with 1 in 1,000 solution of hydrarg. perchlor., a cyanide gauze drain introduced in place of the improvised one of calico, and a pad of gauze and cotton-wool was placed over the wound and bandaged. He had been able to pass water satisfactorily, and had no acute pain in the abdomen. After the wound had been dressed $\frac{1}{4}$ gr. of opium was administered, and was repeated at 10 p.m. It should be mentioned that there was a little oozing of blood from the wound.

May 28th. The patient was not seen by us this day, but he was visited by Dr. J., who was watching the case in a judicial capacity. He reported next day that satisfactory progress had been made, but that there had been some tympanites and sickness. Dr. J. requested us to continue the care and treatment of the case, as we had treated it in the first place, but each day visited the patient when we were there, and was on all occasions most kind and anxious to assist us in every way, and when the ship left visited the patient and carried on our treatment.

May 29th. Patient passed a fair night. Temperature 98.4°, pulse 80, full and soft, with occasional intermissions; there was some slight distension of the abdomen, but no symptoms of peritonitis. Wound dressed as before. Drain changed. Still only taking milk in very small quantities and a little broth. Patient vomited at 6 p.m., and at 6.30 p.m. fell asleep and slept till 5 a.m. next day.

May 30th. Was given some milk on waking, which he immediately vomited. He was visited by us at 5 p.m. Temperature 99°, pulse 75; he had taken and retained one egg beaten up in $\frac{1}{2}$ pint of milk since 11 a.m. There was still some oozing of blood from the wound. Abdomen somewhat distended, and patient suffering from occasional tormina. He was given a large soap-and-water enema containing 1 drachm of tinct. valerian; this was followed by a copious evacuation in which were some scybala, after which he was considerably easier.

May 31st. At 1 p.m. we received a note informing us that the patient was much worse and had been bleeding all night. Dr. J. had been summoned and had changed the dressings. On our arrival, about 2 p.m., we found that at 1.30 a.m. and again at 9 a.m. patient had vomited some brown-coloured offensive fluid; that which he had last vomited had been kept, and it had a slightly faecal appearance and odour. His abdomen was a little distended, but there was no rigidity and no tenderness except close to the wound. He had slept for an hour and a half during the previous evening, but had only dozed lightly during the night. The bowels had not acted again since the enema, but flatus had been passed. Nourishment still entirely liquid. He received $\frac{1}{4}$ gr. of opium at 5.30 and 9 p.m. yesterday and at 5 a.m. to-day.

5.30 p.m. Dressings changed; some blood was observed on the dressings, but all haemorrhage or oozing had ceased: temperature 99.2°, pulse 72; patient quite comfortable.

June 1st. The patient had a good night, slept from 9 till 11 p.m.; he was then awake for a short time, after which he slept for the remainder of the night. At 5 p.m. he seemed listless and apathetic, but apparently free from pain. Tongue clean and moist, pulse 70, without intermissions, but weaker than before. Temperature 99.0°. When the dressings were changed it was noticed that a small knuckle of gut was protruding from and adherent to the wound. He was given another enema containing tr. valerian, but only a slight action resulted.

June 2nd. Temperature 97.8°, pulse 64. The patient slept for two hours and dozed lightly during the rest of the night. There was a slight cough, and with each cough a sharp pricking sensation in the wound (due to adhesions). The bowels were opened naturally three or four times; there had been no sickness for two days, and there was no flatulence, hiccup, or distension. The dressings removed were slightly stained with serum. The adhesions of the bowel to the edges of the wound were broken down with the handle of a scalpel, the knuckle of bowel returned into the abdomen, and deep, buried, catgut sutures were put in so as to unite the cut edges of the muscles, only just enough space being left for the drain. By this time the patient was taking more food—namely, bread and milk, egg beaten up with milk, broth and meat extract, and jelly. His voice was stronger and general appearance greatly improved.

June 3rd. Temperature 97.7°, pulse 92, quite regular. Sleeping a little better.

June 4th. Temperature 97.8°, pulse 90. Bowels opened twice after taking 1 drachm of Carlsbad salts. Slept for seven and a half hours last night, only waking once. Given solid food to-day for the first time in shape of bread and butter and minced beef.

June 7th. Drain taken out and not replaced. Superficial sutures at inner edge of wound had given way, but not the deep ones.

June 8th. Temperature 98.6°, pulse 90. Bowels opened three times. He was free from pain, taking plenty of nourishment, and smoking as usual since the 5th. There was no sign of prolapse of the intestine.

Result.—June 10th. H.M.S. *Magnificent* left Gibraltar, and we did not see C. until we returned on June 26th, by which date he had completely recovered. The wound had entirely healed, and there was no sign of ventral hernia, as we had rather feared there would be. On July 4th we visited him just before leaving with the Atlantic Fleet for Brest; he was walking about and seemed in excellent health and spirits, and, in accordance with our directions, wearing a pad and bandage over the site of the injury.

Considering the age and conditions under which this man received his wound, it seems to us a good example of how much can be done under unpromising conditions, with slight resources, provided strict asepsis be maintained.

A METHOD OF GUARDING THE PERINEUM IN LABOUR.

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Nor the least important part of the second stage of labour is that known as the "guarding of the perineum" against laceration and rupture. There are several time-honoured methods which have received more or less acceptance, notably the direct and indirect methods, but all of these, to which I have given a prolonged trial, seem to me to break down sooner or later, and I therefore venture to put forward one or two suggestions which are the outcome of my own experience, as I hold that, given a reliable method of guarding the perineum, in the hands of a practised accoucheur, rupture ought to be a very rare accident indeed, while I urge that not nearly enough importance is attached to keeping the perineum intact as a certain means of preventing many of the *post-partum* diseases to which women are liable, not to speak of the annoyance caused by suture and subsequent removal of stitches during the puerperium.

I shall enumerate, first, the points in which, in my opinion, the various methods break down, and thereafter put forward a few suggestions whereby I think these failures may, to a great extent, be obviated.

(a) In attempting to pull forward the vertex by passing the left hand between the thighs of the mother and employing traction on the scalp.

(b) In "supporting the perineum" in the direct method by pressure thereon of the concavity between the thumb and forefinger of the right hand.

(c) In endeavouring to push the fetal head forwards by the indirect method either by inserting two fingers in the rectum or by pressure behind the anus.

(d) In the delivery of the shoulders.

(a) In most textbooks great stress is laid upon this method