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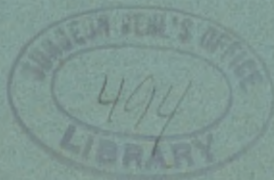
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CHILDREN, NEW YORK CITY.

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WITH A CASE.**

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THE object in reporting the following case is, primarily, to add to the already enormous number of arguments against the use of chloroform as an anesthetic in all instances in which ether can, by any possibility, be substituted, and incidentally to refer to the method of resuscitating the patient, by which means in this case life was undoubtedly saved:

CASE.—Priscilla —, colored, eight and a quarter years of age, required a minor surgical operation about the genitals.

The room in which the operation was of necessity performed was so small that the operating-table stood in close proximity to a stove. This rendered the use of ether inadmissible, and chloroform was reluctantly employed, as cocaine-anesthesia had been unsuccessfully attempted on the previous day. The heart and lungs were normal, and the urine contained no albumin. The child was well nourished and in good general condition.

The administration of chloroform was commenced at 11.30 A.M., by my friend, Dr. Walter A. Dunckel, who used Squibb's preparation and a wire-frame

inhaler. The anesthetic was well taken by the child, who neither struggled nor evinced any appreciable signs of fright.

Anesthesia was accomplished in fifteen minutes. A considerable quantity of chloroform, however (nearly ʒiv), was needed to produce narcosis, which was at no time complete, as the conjunctival reflex was present throughout.

The operative procedure was of two minutes' duration, and was attended by no loss of blood, and the anesthetic was stopped.

The respiration and pulse continued regular, and, under the circumstances, normal for fully a minute, when signs of embarrassed respiration became manifest. The neck was extended, and the jaw thrown forward, causing temporary improvement. The radial pulse now became very rapid and feeble, and ʒxx of brandy were given hypodermatically. The pulse responded slightly to the stimulation, but quickly became imperceptible at the wrist, and respiration ceased entirely. The conjunctival reflex was now absent.

Dr. Dunckel at once grasped the child by the knees, and, holding it before him with the body hanging head downward, shook it vigorously up and down several times, somewhat after the method suggested by Prince.¹ The child was then replaced on the table, with the head lowered (preparatory to proceeding with the Sylvester method of artificial respiration and direct insufflation of the lungs), but she immediately gave a long gasp, followed by several short inspirations, after which respiration became regular and continued so. The pulse also reappeared at the wrist, but was still flickering and of poor quality, and ʒxv of brandy were injected in the leg. The heart did not yet respond as

¹ Medical Record, September 17, 1892.

strongly as was desired, and a towel wrung out in very hot water was applied to the precordium. This stimulation strengthened the heart's action, and the child drew up its limbs somewhat, and cried out feebly. The pulse continued to improve slowly, but surely, and at the expiration of half an hour was 86, and of fairly good strength, while the respiration had become more deep and regular. The patient appeared, however, to be suffering from severe shock, and made feeble replies to questions after they were repeated several times in a loud tone.

During the past five years I have either administered or witnessed the administration of an anesthetic in several hundred cases. In about 3 per cent. of these cases chloroform was used, and in the remainder ether was the agent employed. I have never yet, during ether-narcosis, witnessed a case of collapse that could be fairly attributed to the drug. Yet, in the comparatively small number of cases of chloroform-anesthesia that I have observed, I have already seen two most alarming instances of suspended animation, neither of which, however, resulted fatally.

In the case here described the operative procedure was merely the breaking up, with a probe, of some adhesions between the prepuce and the glans of the clitoris.¹

¹ This feature of the case, while not applying to the present article, is of special interest, as such adhesions are said to rarely occur in females of the negro race, and then *only* in those individuals who have a large admixture of white blood.

In this instance the adhesions were very complete, the prepuce covering the entire glans, and being so firmly attached that considerable force was necessary to effect the separation.

The parents of the child were both seen by the writer, and are full-blooded blacks.

Vide Morris, American Journal of Obstetrics, December, 1892.

This was accomplished so rapidly, when once begun, that, aside from the fact that it was an "operation(?) on the genitals" it can hardly be held responsible for the frightful symptoms that followed.

The other case mentioned (in which I took the part of a spectator only) was that of a boy of about ten years of age, who had received a severe contusion of the perineum and laceration of the deep urethra, with extensive extravasation of urine, calling for immediate external urethrotomy. He was suffering slightly from shock, but not alarmingly so. Chloroform had been given for about three minutes, when he went into sudden and complete collapse, from which he was resuscitated only by the most vigorous measures, continued for a considerable time. The operation was then performed under ether, with no further mishap.

In each of the instances detailed the anesthetic was exhibited with great judgment and skill.

In the case of the negro child the collapse was undoubtedly due to the chloroform, and to the chloroform alone; while with the other child the superior safety of the ether was at the time proved beyond the shadow of doubt.

When such results are added to the enormous mass of evidence that has been accumulating ever since chloroform was first introduced into medical practice, it seems only fair to ask that ether, so well proved to be the least dangerous agent of the two, should be employed in every case in which it is not absolutely contra-indicated.

Too many men make frequent use of chloroform because it is cheaper, less bulky, less irritating, and more easy of administration, than ether. This is

an evidence of false kindness to the patient, and occasionally of actual laziness on the part of the physician, that cannot be too strongly deprecated.

The relative merits of the two drugs in cases of midwifery will not be discussed in this paper, but as to the "remarkable safety" with which chloroform may be given to children, I have grave doubts. It must also be remembered that children are not often subjected to the severe, protracted operations that are so frequently performed on adults. The majority of operations on children are of a plastic nature, undertaken when the general condition of the patient is good, or else they are of very short duration, such as the opening of an abscess or the curetting of a sinus.¹

¹ The entire number of operations performed at St. Mary's Free Hospital for Children during the year ending October 31, 1892, was 212. Of these, 149 (70 per cent.) were of the nature mentioned as follows:

Amputation of supernumerary finger	1
Circumcision	3
Straightening bent knee	1
Correcting deformity after fracture	1
Hare-lip	1
Osteoclasia, tibia, bow-legs	13
Osteotomy, " "	2
" of cuneiform	7
" ankle	1
" knee	3
" for genu valgum	11
" " talipes varus	1
Plastic operation on finger	1
Phelps's operation for talipes	3
Radical cure hernia	8
" " hydrocele	2
Removal of congenital cyst of neck	1
Tenotomy, tendo Achillis	5
Curetting sinuses	41
Opening abscesses	43—149

Vide Annual Report for 1892.

On the other hand, the adult is usually placed under the knife when he has long been a sufferer from some surgical disease, or when he is in severe shock dependent on a serious accident. In either event his whole system is decidedly below par, and a fair comparison of the action of the chloroform in the case of the child is out of the question. When statistics are published to show that in an equal number of cases of chloroform-narcosis in adults and in children the death-rate attributable to the drug has been greater in the first class of patients, it must not be forgotten that they were by no means as well able to resist the toxic action of the drug as were the children, and that the conditions under which it was diminished were not the same, causing, in consequence, a serious fallacy in the argument.

There are one or two points in the administration of ethereal anesthetics to which I wish to refer briefly.

No one should attempt anesthetization unless he is thoroughly familiar with every known method of resuscitation in case an accident should occur, and it is of equal importance that he should have at hand, and ready for instant use, all the instruments and drugs that might, in any emergency, be needed.

A table, within easy reach, should be supplied with whiskey, tr. strophanthus, tr. digitalis, sol. strychnine sulph. (gr. $\frac{1}{30}$ to $\frac{1}{2}$), and a hypodermatic syringe *filled* with whiskey, together with a mouth-gag, tongue-forceps, and the necessary instruments for the performance of tracheotomy.

In hospital practice these articles are usually provided, while in private practice they are often con-

spicuously absent, a syringe and little whiskey being deemed amply sufficient. There should also be some boiling water in readiness, especially during chloroform-anesthesia, as the direct application of a very hot wet towel to the precordium is one of the best and most rapid heart-simulants we have, being often effectual when there would be no time for any known drug to act, however administered.

These precautions should be taken preparatory to the exhibition of an anesthetic for any purpose whatever, whether for surgical examination merely or for a severe and protracted operation.

Of the various methods of artificial respiration, the Sylvester is probably best suited to this class of cases, but they are all so generally known as to need no further mention here. At the same time, however, any physician, who has never actually *seen* artificial respiration performed would do well to ask some one who is thoroughly familiar with the technique to demonstrate it to him, practically, on his own body. The knowledge so gained will never be forgotten, and may be the means of saving lives.

Direct insufflation of the lungs often proves of inestimable value, not only in cases of collapse during anesthesia,¹ but also in the suspended animation of the newly-born child.²

The method of resuscitation suggested by Prince,³

¹ This procedure is clearly explained in Agnew's Surgery, second edition, vol. ii, p. 288.

² Forest, Medical Record, April 9, 1892.

³ Op. cit.

and explained in part only in this article, is an important addition to our knowledge on this subject, and the plan described by Maass,¹ as in use at the Göttingen Klinik, is undoubtedly of great service.

¹ International Medical Magazine, July, 1892. Medical Record, September 17, 1892.

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