ing the operation, and if not taken care of tends to encourage retention. We also use a indwelling catheter in all vaginal plastic cases. Our incidence of retention, excluding the above mentioned cases, is 3.3 per cent for the series. . . . In this series there were 45 cases which developed pulmonary complications, 27 of these were bronchopneumonia, 11 were lobar pneumonia, five were atelectasis, and two were pulmonary embolism. . . . One case developed anesthesia of the upper lip immediately following a cystoscopic examination. This persisted for two days, then disappeared completely. There was nothing unusual about the anesthesia, the level was not high, and we cannot explain this occurrence on any other basis except hysteria. There were no other incidences of any type of neurologic complications. . . . There were 82 deaths in this series of 2000 cases making a gross mortality of 4.1 per cent. The average time that elapsed between operation and death was 5.9 days. None of these were anesthetic deaths, and we do not feel that the anesthesia was a contributing factor in any of them." 20 references.

J. C. M. C.


"The present communication deals with experiments showing that the early mortality following severe thermal injury is profoundly influenced by the type of sedation and anesthesia used. In the first paper of this series the combination of nembutal and morphine used produced a good anesthesia during the injury itself, as well as a fairly prolonged sedation afterwards. Following the publication of this data, Dr. Alfred Blalock wrote that he had repeated these experiments and had observed a much lower mortality; indeed, only two deaths occurred under 24 hours in a series of 12 experiments in which a thermal stimulus of 85° to 90° centigrade for 5 to 15 seconds, up to the axilla, was employed. With a similar degree of injury, our mortality was 100 per cent. The fact that he used a smaller dose of morphine without nembutal plus a short ether anesthesia during the burn stimulus suggested that the pronounced difference in mortality might be due to the type of anesthesia used. In order to study this supposition, a series of experiments were carried out in which a somewhat more severe burn stimulus (immersion up to the axilla at 100° centigrade for 10 seconds) was employed in a series of ten experiments each; various doses of morphine in combination with nembutal or ether were used in each group. . . . Morphine increases the 24-hour mortality (up to 100 per cent) in severe experimental burns, particularly when given in large doses and with nembutal. Practically no 24-hour mortality occurred when ether alone was employed. It is inferred that large doses of morphine, when used in the absence of pain, may increase the early mortality in severe human burns." 3 references.

J. C. M. C.


"The reaction when any part of a warm-blooded animal is exposed to cold is both complex and variable according to many modifications of degree and kind. . . . The effects of a tourniquet depend on the material, breadth, tension, time and temperature. Hard or inelastic materials, such as wire, cord, fabric or stiff rubber, create troubles either by looseness or by crushing of
tissue. Breadth adds to the area of compressed tissue without reducing the degree of tension necessary for stopping blood flow. For these reasons we use two superimposed turns of a $\frac{1}{2}$-inch soft rubber tube, until an ideal air-pressure instrument may be found. The tension should theoretically be the minimum which will positively stop circulation. In practice, errors are usually on the side of insufficient tension. . . . Under proper conditions necrosis need not be feared from either pressure or asphyxia, except after much longer periods than traditionally supposed. . . . When a limb is injured or infected to such an extent that amputation is obviously necessary, the immediate application of a permanent tourniquet will stop haemorrhage, toxic absorption, pain, and also any increase of shock or spread of infection. The amputation may then be performed when feasible, hours or days later, above the permanent tourniquet. . . . A radical reduction of temperature in a normal limb is practically obtainable only with a tourniquet. . . . Although the injuries resulting from cold are still imperfectly understood, the chief factors may be fixed in memory under three t's—tissue, temperature and time—and two e's—circulation and complications. . . . The temperature required to freeze tissue is about $-2.5^\circ$ C. . . . The therapeutic use of cold avoids both freezing and the factors which predispose to injury. . . . Refrigeration without a tourniquet has the advantages of simplicity, unlimited time of application, and adaptability. . . . Refrigeration without a tourniquet may be used to reduce local pain, also oedema and inflammation if they become excessive. . . . Refrigeration without a tourniquet can also be used as a local anesthetic. . . . In dangerous gangrene or infection of a limb, with severe fever and intoxication, packing of the entire limb in ice or ice-bags is urgent, and the results are usually dramatic. . . . Refrigeration has been established as a standard treatment for frost-bite, immersion foot and other injuries from cold. . . .

"An extremely important and neglected use of refrigeration without a tourniquet is in the treatment of burns. . . . Cold acts similarly to compression in the reduction of exudation and shock. It is superior in the control of pain and infection, and a still greater superiority is in regard to tissue preservation. . . . Refrigeration without a tourniquet for shock treatment is rational. . . . Refrigeration without a tourniquet is still in process of development for miscellaneous uses. . . . For example, the military services, prompted by Fay's original observation in filariasis, report a few cures of tropical ulcer. . . . Turning now to refrigeration with a tourniquet, we obtain . . . a more radical and thorough chilling such as is necessary in some circumstances. It may be indicated, for example, in desperate cases of gangrene with infection, or gas gangrene, when amputation is not feasible or prudent but the spread of bacteria and their poisons must be stopped immediately and decisively. . . . It must be remembered that this plan, in the form of either the permanent tourniquet or solid freezing, necessitates amputation; therefore permission for the operation should be assured before the procedure is begun. Refrigeration with a tourniquet can also be used for most of the purposes already mentioned, if there is need of deeper and more radical chilling than is possible without a tourniquet, and if the time of treatment is not too long. . . . Refrigeration with a tourniquet has mainly been used and is most familiar as an anesthetic for amputation in poor-risk patients. . . . Passing on to another surgical problem,
namely thrombosis and embolism, I wish to venture some new suggestions regarding treatment... As soon as there is evidence of complete blocking of a major artery, the detrimental effects of heat upon bloodless tissues should be remembered. Surrounding the limb with ice is then a very beneficial measure, which can be carried out immediately, even at the patient's home. Because the thrombus acts like a tourniquet, deep chilling is possible and pain and tissue devitalization can be checked. Not only is the contraction of blood vessels immaterial, but I also propose the earliest possible placing of a tourniquet well above the point of occlusion.’’ 30 references.

J. C. M. C.


The catheter holder was devised primarily for holding a Levine tube in place without adhesive tape.

'It is composed of a piece of elastic suspender for a head band with a buckle attached; a swivel, double adjustable unit through which the elastic is passed, and a piece of hollow metal tubing through which the nasal catheter is passed for satisfactory holding. The tubing may be adjusted in two planes to fit any patient.’’

From the pictures of the catheter holder it appears to be too long for use of nasopharyngeal oxygen catheters although it might be modified.

M. L. B.


'[The author has] devised a drip-feed tube for the measured and controlled introduction of di-vinyl ether as an adjuvant anaesthetic agent into the circuit of a modern gas and oxygen machine. Using this tube very adequate and satisfactory supplementation of N₂O and O₂ anaesthesia can be achieved at extremely low cost. Divinyl ether is relatively an expensive drug, a factor that is further increased by the high degree of volatility and lack of keeping quality which it possesses. . . . One thousand consecutive administrations were carried out at a consumption of 1,485 cc. di-vinyl ether. With the 'Tip-it-in' technique, 1,000 cases would have required 1,000 ampoules, and although many of those cases might have required a 5 cc. ampoule, I consider that 3 cc. would have been used in the great majority. The consumption by this method, therefore, would have been 3,000 cc. A saving of approximately 50 per cent is thus obtained by the Ampoule Tube, and to this must be added the advantages of the drip-feed method in the matter of easily regulated fractional dosage.’’

J. C. M. C.


This editorial is a good summary of the work of C. N. H. Long and his group. Most of his work was recorded in the Journal of Experimental Medicine, 1943 and 1944. In shock all the tissues and systems of the body suffer some oxygen lack, due to deficient blood flow. 'The sensitivity of liver and kidney to anoxia accompanying hemorrhagic shock was tested by comparing the rate of respiration of slices of liver and kidney from normal rats and from rats in progressively severe states of shock.'

The result of this study showed that liver consumption of oxygen taken from shocked rats was greatly reduced. On the other hand, the kidney consumption of oxygen in normal and shocked rats was about the same. Thus it is suggested that many of the chemical changes in the blood which occur