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Intocostrin, the Spectacular.
H.W. Newcomer m.d.

The interest in Curare has increased so far beyond our immediate expectations that it is difficult for us to put it into vials fast enough to keep up. Its widespread use has extended from the home front deep into the war areas and has brought some very interesting accounts of what this miraculous Intocostrin has been able to do for our wounded. The battle casualty presenting an abdominal injury is usually not a simple matter. If it were perhaps the ordinary methods of anesthesia would suffice, or at least enable one to get by, but not being an ordinary casualty this may not be possible without the use of Intocostrin. Such patients have usually been in shock for some time and have been given more or less resuscitative therapy. Further shock can be anticipated during the surgery that has to ensue. Thus, take the following two examples reported to us from overseas:

"Mine explosion at 9 a.m. received at 11 a.m. and in spite of three units of plasma on the way to the hospital the patient demonstrated evidence of shock due to blood loss and trauma. 1500 cc blood was given on admission effecting slight improvement in the general condition. Pre-operative diagnosis: penetrating, perforating wound of abdomen; compound comminuting fracture, severe, of right humerus; compound, comminuted fracture, severe, left femur. At operation, multiple perforations of the ilium were found, also lacerations of liver and hole in the stomach. During the course of surgery the patient received 1,500 cc blood, two units of plasma and 800 cc sodium bicarbonate 2% intravenously."

"Mortar shell injury. Upon admission in extreme shock, with no response to resuscitative therapy, including 1,000 cc plasma and 1,400 cc blood. Surgery deemed necessary to control hemorrhage. Pre-operative diagnosis: Penetrating and perforating wound of abdomen and penetrating wound of trachea. At operation numerous holes were found throughout large and small bowel and lacerations of right kidney. During surgery patient received three further transfusions, three units of plasma and other intravenous fluids."

Such injuries speak for themselves and it does not require much imagination to understand that anesthesia presents a problem in such cases. Well over four hours may be required to clean up the patient, even with two surgical teams working. It is almost impossible to secure adequate relaxation of the abdominal musculature without the use of Intocostrin, for if ether in sufficient quantity is administered over such length of time, shock leading to death is almost inevitable. The lives of many such patients are now being saved with Intocostrin. The relaxation thus secured permits the amount of ether used to be reduced to a minimum—and avoidance of the shock that would be caused by long deep anesthesia, and by severe mauling of a rigid patient.

We have all heard of ether convulsions. I would like to quote from a letter received from a medical officer serving in the European Theatre of war, citing a case where a life was very probably saved with Intocostrin. — "I had one extremely interesting case. I was called to see a patient who had suddenly developed convulsions under ether. The surgeon was working on the posterior aspect of the duodenum and to secure sufficient relaxation the anesthetist was carrying the patient very deep, at about the bottom of the third plane. The use of pentothal sodium was contraindicated at the moment because of the depth of anesthesia, so I immediately intubated the patient and started de-ther-ising him with oxygen. At the end of five minutes I thought it fairly safe to administer pentothal, and gave about one gram over an eight-minute period without apparent change. If anything the convulsions were increasing in frequency and intensity. The pulse and blood pressure throughout remained good. Waited another five minutes, then decided to give the patient Intocostrin. Gave 30 mg. immediately and within sixty seconds the convulsions stopped. The patient went into apnea which was easily controlled by manual pressure on the bag and the surgeon was then able to finish. The patient had a very uneventful postoperative course."

One paper only has been published on the use of Intocostrin with pentothal anesthesia and that paper was in French. Griffith in his last paper mentions such use but does not go into detail. However a very good paper is in preparation and we have a number of reports. When sodium pentothal, or any soluble barbiturate is mixed with Intocostrin

precipitate forms. The precipitate contains none of the activity of either the barbiturate or the curare and the supernatant fluid can be decanted and used for the combination of these activities. When such fluid is administered, an anesthesia is obtained with a much lower level of the anesthetic, securing at the same time, a relaxation, a gain in safety, and a rapidity of post-operative recovery, all of which goes beyond that afforded by barbiturate alone. With the use of Intocostrin, upper ~~level~~ abdominal operations are greatly facilitated and can be carried on under almost ideal surgical conditions, the surgeon having a much easier task.

Presented by R.M. Stoddart, Professional Service Representative, E.R. Squibb & Co.

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... shell injury. Upon admission in extreme shock, with no response to ... therapy, including 1,400 cc plasma and 1,400 cc blood. Surgery ... necessary to control hemorrhage. Pre-operative diagnosis: Penetrating ... wound of abdomen and penetrating wound of trachea. At operation ... holes were found throughout large and small bowel and lacerations of ... kidney. During surgery patient received three further transfusions, three ... of plasma and other intravenous fluids."

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