and more comfortable than those receiving spinal, deep general anesthesia or curare. In a diabetic there was no upset of carbohydrate metabolism or postoperative acidosis. Postoperatively with the use of this drug, 12 per cent of patients vomited; 4 per cent more than twice.

In summer, myanesin holds great promise but still must be considered an experimental drug. This drug appears to have well marked advantages over curare. It has a wider margin of safety than curare. Doses of 5–20 cc. (7–28 mg./Kg.) produce no undesirable effects. Abdominal relaxation is obtainable even in the conscious patients without any distress. The drug doesn’t cause intercostal paralysis in doses producing full relaxation of the abdominal muscles. In most cases it is much more effective with barbiturate anesthesia than is curare and apparently enhances the action of the barbiturates. So easily is abdominal relaxation obtained under pentothal-nitrous oxide-oxygen when myanesin is used that the use of the more toxic cyclopropane is not necessary. It is effective under the lightest possible anesthesia thus reducing the amount of general anesthesia needed. No bronchospasm or salivation occurs even when no atropine or hyoscine has been given and even in the conscious patient.

J. M. B.


It became increasingly evident, during the American campaign in North Africa, that although many battle casualties suffering from shock responded well to the administration of large quantities of plasma, some of the more severely wounded did not respond until treated with whole blood transfusions. The increased use of blood from January 1944 to May 1945 was reflected in a decided decrease in mortality among American casualties in Fifth Army hospitals during that same period.
Cases of traumatic shock were placed in one of four etiologic categories: (1) trauma and hemorrhage; (2) trauma and hemorrhage plus contamination or sepsis; (3) trauma hemorrhage plus cardiorespiratory embarrassment; (4) trauma and hemorrhage plus contamination or sepsis plus cardiorespiratory embarrassment. Treatment was directed to deal with all these etiologic factors.

If, on admission, a soldier's blood pressure was unobtainable, 500 cc. of low titer group O blood was given in five to ten minutes; if the blood pressure did not respond, the transfusion was repeated. When a systolic blood pressure of 70 mm. of mercury was obtained the rate of transfusion was decreased. All blood after the first 1,000 cc. was cross matched, and in cases of less severe shock all blood was cross matched. Oxygen was given. Should the blood pressure have failed to respond to whole blood, surgical intervention was considered and the transfusion continued as the patient was moved to the operating table.

Further replacement therapy was dictated by findings at operation. Peritonitis and peritoneal contamination without much blood in the cavity was an indication for plasma rather than for more blood. After the systolic blood pressure approximated normal, 1,000 cc. more blood or plasma was given.

Casualties with numerous or extensive wounds were considered in impending shock even with a relatively normal blood pressure and were given 1,000 cc. of blood before operation or radiologic examination.

In the postoperative period anemia was the rule; normal hematocrit readings were sought early by means of further blood transfusions.

The blood furnished to forward hospitals was all group O but titered for anti A and anti B agglutinins. When the agglutinins were in a titer greater than 1 to 64 the blood was reserved for group O recipients only. When the agglutinins were present in a titer less than 1 to 64 the blood was considered low titer group O and could be given to group A, group B, and group AB recipients and to any emergency case without cross matching up to 1,000 cc. Blood was drawn from donors, excluding those with a history of jaundice, malaria, or syphilis, into vacuum bottles containing citrate, and topped with dextrose solution. It was checked for syphilis and malaria. Refrigeration was maintained continuously until use, which was not more than seven days later.

Whole blood was essential in the management of casualties at the time of reparative surgical intervention in base hospitals. Daily transfusions up to 1,000 cc. until hematocrit readings were normal permitted successful early reparative operations of great extent.

Snyder concluded that the loss of whole blood rather than of plasma is the cause of reduced blood volume in cases of traumatic shock; that rapid replacement of whole blood, properly coordinated with other resuscitative measures (including surgical intervention) is essential in the treatment of severe shock; that adequate replacement of blood shortens convalescence and reduces morbidity; that cases of infected or complicated wounds should receive repeated transfusions to maintain a normal hematocrit; that low titer group O blood should be available for emergencies in civilian practice. 11 references.

R. R. C.


The Anesthetic Department of the Georgia Baptist Hospital, Atlanta,