

been observed.".... "If performed before irreparable damage has been done by the anæmia, transfusion is specific in acute hæmorrhage. In suitable cases it has been of very great value in the prevention and the relief of the circulatory phenomena of shock."

It has been amply proved that preliminary, contemporaneous, or, if necessary, post-operative transfusion is of extraordinary value in the cases of grave, or even impossible, operative risk. Notably is this the case in two classes of patients;—those in whom there has been serious, perhaps continuous, internal hæmorrhage; and those who have been reduced by long illness, starvation, or otherwise to a condition quite unsafe for the operation indicated.

As to the heart, Crile says that this organ has shown itself to be the most important consideration in transfusion. The heart muscle itself is peculiarly dependent upon a sufficient circulation and oxidation. In severe anæmias, the myocardium is, and for long, perhaps, has been, anæmic. This impairment of its nutrition leaves it with a much narrowed margin of safety; so that, during transfusion, it may be unequal to carry the increased burden thrown upon it by the rapid influx of fresh blood from the full-pressure donor, and heart dilation may follow with the result of threatening or actual cardiac paralysis. "This condition is best met by careful adjustment of the rate of flow, and by having an assistant continually percussing the heart dullness, so that at the first sign of dilatation the flow is checked or stopped." Digitalis is also recommended.

At the end of the article there is added a couple of paragraphs upon the vexed question of hæmolysis in the procedure under discussion. Crile remarks that a hæmolysis *in vitro* does not necessarily imply a hæmolysis *in vivo*. "In fact, their agreement may be the exception. For example, I have transfused eighteen cases of tuberculosis. In most of these the donor's blood hæmolized the blood of the recipient in the test tube, but not in the patient. On theoretic grounds, transfusion in these cases should be fatal, but in practice no unfavorable results appeared."

F. LEGUEU, L. MOREL, and H. VERLIAC. "Rectal Anæsthesia." *Archives Générales de Chirurgie*, June-July, 1909.

The induction of anæsthesia by means of ether vapor introduced into the rectum is by no means a new procedure. Scarcely had ether itself been discovered, or rather its anæsthetizing properties been discovered, before it was suggested that it might be used by way of the rectum. In the one year, 1847, Roux made the suggestion; his interne, Dupuy, carried it out successfully on laboratory animals; and Pirogoff applied it