

day the temperature was normal and acute symptoms had subsided. After two more transfusions the patient was discharged as being improved.

(2) A boy of 11 years of age, admitted in shock with commotio cerebri, fracture of pelvis and separation of subcutaneous tissues of back. A transfusion of 200 cc. of placental blood quickly brought up the blood pressure; as a result, the patient recovered.

SUMMARY

(1) Morphological, biochemical and hormone properties of placental blood are much different from regular donor's blood.

(2) Placental blood can be used for transfusions and is very easily preserved if regular rules for conservation are observed.

(3) The therapeutic effect of placental blood promises a great future to this homo-hemotransfusion.

(4) The most effective results were obtained in patients with traumatic shock, hemorrhage and inflammatory lesions.

(5) There must be more research performed and better technic applied while withdrawing the blood to prevent contamination and waste of placental blood. At present there is a 17 per cent loss of blood because of imperfect technic.

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BARTON, F. E.: *A Simplified Citrate-dextrose Blood Preservative*. J. A. M. A. **116**: 1196-1197 (Mar. 22) 1941.

"In the Oct. 14, 1939 issue of THE JOURNAL the Transfusion Service of the Massachusetts Memorial Hospitals, Boston, reported on 'The Use of Placental Blood for Transfusion.' This article emphasized among other things the advantage obtained by the addition of dextrose to the preservative. We reported that the addition of dex-

trose retarded hemolysis from fourteen and four-tenths days to twenty-two and three-tenths days. This same paper stated that we were confident a series of blood specimens then being studied would show an even more delayed hemolysis. It is on this series of 250 blood specimens that we are now reporting. . . . A technic of preserving blood by the use of a simplified citrate-dextrose solution was adopted. Fifty flasks preserved with sodium citrate 2.5 per cent and dextrose 0.5 per cent failed to show hemolysis for twenty-one days. Ninety-two flasks preserved with sodium citrate and dextrose 2.5 per cent failed to show hemolysis for forty-six days. Eighty-four flasks with sodium citrate 2.5 per cent used as a control showed hemolysis in fifteen days. Blood preserved with the citrate-dextrose solution has been used clinically with good results." 4 references.

J. C. M. C.

BRINES, O. A., AND MANNING, J. B.: *Experience with the Blood Bank*. J. Michigan M. Soc. **40**: 201-204 (March) 1941.

"Generally speaking a blood transfusion is a hospital procedure and the comparative simplicity of the indirect transfusion has led to its widespread adoption in institutional practice. . . . The blood bank at Detroit Receiving Hospital had its beginning in a small way during the summer of 1937 when an occasional bottle of citrated blood would be placed in the ice box of the main laboratory for several days until the patient for whom it had been taken was in need of a transfusion. . . . The value of having blood always available became more and more appreciated, and at the beginning of the second year the attitude toward the bank changed abruptly and for the past two years the bank has been accepted as an indispensable adjunct to institutional medi-

cal and surgical practice. . . . Considerable financial saving has of course been possible, but the chief value of the bank has been the ready availability of blood when needed and the elimination of the usual confusion attending the selection of suitable donors for transfusions in emergency situations which frequently arise during the night or on week-ends, holidays, et cetera. . . .

"At the beginning we believed that the blood could be stored for at least three weeks. Now we believe that a maximum of a week is preferable. . . . Experience has proved that the use of universal donors is a safe practice. . . . Considering the fact that any bacteria present will be in small numbers and probably non-pathogenic, and the natural bactericidal properties of the recipient's blood, it would seem that the taking of blood cultures routinely from bank blood when it is used is both unnecessary and impractical. . . . The speed of giving the blood has also been studied and we have been forced to the conclusion that the optimum time for a transfusion, as far as reactions are concerned, is from sixty to ninety minutes. Several months ago we discontinued heating the blood before giving it and our figures would indicate that this change has reduced the percentage of reactions. The chief objections to heating appear to be frequent overheating and undesirable agitation while heating. Over 1,000 consecutive transfusions of cold blood have been given, frequently out of the refrigerator less than thirty minutes. The only untoward result of this practice that we have been able to see, has been a local cooling of the tissues in and around the antecubital fossa and this did not seem to annoy the patient. . . . To discuss the percentage of post-transfusion reactions is difficult because in no two series of cases are the same criteria used. Because such a discus-

sion has little comparative value it will be omitted here. The amazingly low percentage of reactions in some series would indicate that very liberal criteria are sometimes employed." 9 references.

J. C. M. C.

BRINES, O. A., AND MANNING, J. E.: *Development of the Plasma Bank.* J. Michigan M. Soc. 40: 204-207 (March) 1941.

"Blalock has stressed the use of plasma as the ideal treatment for shock from all causes and it has been known for years that plasma is a valuable therapeutic agent in cases of severe burns. It now seems apparent that plasma is preferable to whole blood in all emergencies where transfusions have been employed in the past except carbon monoxide poisoning, where normal red cells are badly needed. Severe hemorrhage is no exception to this statement because here it is shock and not anemia which endangers the patient's life and which must be combated promptly and forcefully. We are coming to realize that the chief indications for whole blood transfusion are to correct severe acute anemia from hemorrhage after the patient has been restored from shock and to correct severe chronic anemia where drug therapy is either inadequate or impractical, e.g., in preparation of an anemic patient for operation. Prior to the advent of the blood bank, plasma was not readily available but today it is a natural by-product of the former. . . .

"The method of preparing plasma in this hospital has been reduced to its simplest form. At the end of twenty-four hours the citrated blood has usually separated into two distinct layers with the supernatant plasma assuming a clear yellow color. At the end of three days maximum packing of the cells has occurred. Our method of removing the plasma has been to use