# GIVE BLOOD . . . SAVE LIFE

**By Dr. M. L. Gupta***

THE ANTIQUITY of the blood as a therapeutic agent is difficult to establish but probably antedates even civilization and certainly it began with the origin of medicine itself. The development of Blood Transfusion from the vague allusions in the early mythological period to the scientifically established and employed therapeutic procedure of the present day forms one of the mostfascinating and romantic chapters in medical history. The ancient Egyptian princes used blood baths for resuscitation and recuperation, and the custom of rushing into the gladiatorial arena to drink the freshly flowing blood was prevalent among the Romans.

In the middle ages, drinking of blood was popularly considered a health restorative measure. According to Villari, Pope Innocent 8th who had applexy in 1491, was given blood transfusion by a Jewish doctor in 1492. The blood of the Pope was passed in the veins of a youth whose blood was transfused into the veins of the old man. The experiment was tried 3 times at the cost of the lives of 3 boys but without any effect to save that of the Pope. After this approximately a century elapsed before the reappearance of the subject of blood transfusion. The first definite application of blood transfusion with a detailed description of technique has been credited to A. Libavius and this seems to antedate Harvey's discovery of Circulation, which was one of the outstanding historical discovery in the year 1616. However it is not until after the middle of 17th century that authentic references of blood transfusion are to be found. According to some writers, Folli is supposed to have performed the first transfusion on August 13 1654 in the presence of Grand Duke Frederick II, using silver a tube connected to a canula of bone by means of a hollow pipe made from the blood vessels of an animal. Richard Lower alongwith E. King performed the operation of Transfusion successfully in 1665. Lower in 1667 transfused Mr. Arthur Coga a midly melancholy insane man using the blood of a lamb. In the meantime similar investigations were being done in other countries like France where Derris performed the first anthentically reported successful transfusion on man. Mania, melancholy, apoplexy, and advanced lung and bowel's disease were the main indications for blood transfusion. Moreover the complete ignorance of asepsis, of immunology, of the process of coagulation, of blood groups, and of incompatibility inevitably caused severe and fatal reactions. James Blundell in 1818 revived the interest of medical investigators in blood transfusion by directing his attention to replacing the blood in cases of pupural haemorrhage. After many experiments on dogs, he came to a conclusion that blood after passing through a syringe does not lose its vital properties and venous blood was as satisfactory as arterial. Many advancements were made in the technique and the types of instruments used. Conheim in 1882 has also discussed the dangers of heterogenous transfusions and emphasised that the fact that the serum of one species is a direct poison for the corpuscles of another. Probably the greatest achievement and the most important single discovery in the history of blood transfusion was a demonstration in 1900 by Landsteiner of the presence of isoagglutinating and isoagglutinable substance in human blood. In the following year, he divided the blood in 3 groups with regard to their agglutinating reactions and indicated their practical significance. In 1902 De Castello and Sturli added the fourth group. The more modern period in the development of blood transfusion was characterised by various attempts to facilitate the transfer of blood. Obviously clotting presented the chief difficulty. Paraffinised glass tubes were used in 1890. The use of hirudin was suggested by Landois in 1890 and tried by Satterlee and Hooker in 1914 but its toxicity furnished a serious objection. It was in 1914 when on November 14 Agote performed the first transfusion in which citrate alone was used and after the discovery of Sod. Citrate as a safe and suitable anticoagulant, many more suceessful transfusions were given in the 1st World War and it was then that Blood Banks came into being.

Today, the whole world is aware of the significance of blood donation to save lives and as such this year's theme for World Red Cross Day "G I V E B L O O D...SAVE LIFE" has been selected. We in India are decidedly aware of the significance of these few words, everybody knows that blood can save a life, but probably we are not conscious of our moral and social responsibilities towards this sentence. Let us take the statistics of Delhi alone which incidently happens to be the capital of the country where most educated strata of the society live. Out of a population of roughly 40 lakhs the number of voluntary donors are only about 5,000 which gives us a percentage of 0.12. Even if we exclude 20 lakhs persons who are children or ill or sick or belong to the old age group and thus are unable to give blood, we are still left with 20 lakhs people. If they celebrate their birthday by giving blood even once in 10 years, probably we shall not fall short of blood in Delhi.

The categories who are not conscious of the theme "GIVE BLOOD...SAVE LIFE" include people from every sphere of life and the doctors and nurses are no exception. Knowing full well that blood donation is absolutely harmless and it can actually give a gift of life to someone who otherwise will definitely die, when an appro-

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