MEDICINE

"Blood Banks" May Receive Deposits for Transfusions

Expectant Mothers May Prepare for Emergencies By Donating in Advance Blood to be Used if Needed

A "BLOOD bank," into which expectant mothers may deposit as much as a quart of their own blood shortly before the crucial time of confinement, and which may be drawn upon for life-giving strength during childbirth, now offers hope of further reductions in maternity death rates.

One of several results of experiments with preserved or "canned" blood for transfusions, the blood bank method of aiding childbirth was announced by Dr. Maurice Vischer, head of the physiology department at the University of Illinois research hospital in Chicago.

"Taken from the patient during the last stages of pregnancy when she has stored up a healthy surplus of rich blood, the reserve blood is preserved by electric refrigeration for possible use at any time before, during or after childbirth," Dr. Vischer said.

Red corpuscles in the blood will live as long as a month outside the body if properly preserved and refrigerated, the young physiologist explained.

"The principal advantage of the banked blood method obviously is one of speed in supplying immediate transfusions without the sometimes fatal delay of searching for a professional or other donor of suitable type. Because the blood is taken from the patient at least a week before birth is due, there is ample time for the body to furnish new blood, thereby alleviating danger of weakness," Dr. Vischer pointed out.

Canned Blood

Other successful experimentation with preserved blood, announced by Dr. David John Davis, dean of the university's medical college, consists of removing the blood from the lifeless bodies of accident victims and "canning" it in the same manner as that employed in the blood bank.

To avoid infection, blood for this purpose is taken only from the bodies of persons who have died suddenly and upon which autopsies may be performed. Before being preserved the blood is classified as to type so as to be readily accessible for emergency transfusions, Dean Davis said.

Not the least advantage of preserved blood, he added, is elimination of the high cost of blood furnished by professional donors—from fifteen to fifty dollars and up for each transfusion.

Hundreds of lives already have been saved in Russia by this medical innovation, Dean Davis reported on his return from Moscow where he studied the system under its originator, Dr. S. S. Judin, chief surgeon at the Sklifassowsky Institute there.

Dr. Vischer predicted that Chicago may soon have the first "blood clinic" to be established in America. Accident cases involving profuse bleeding would then be rushed to this one hospital for transfusions and preliminary treatment.

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MEDICINE

Take New Step Toward "Painless Dentistry"

A NEW step toward "painless dentistry" seems to have been taken by a Columbia University professor. The latest development is the discovery of Dr. L. L. Hartman of a "desensitizer" that does away with the painful sensations during the necessary drilling before a cavity in a tooth can be filled.

The desensitizer, which Dr. Hartman discovered after nearly twenty years of research, is a colorless fluid. Unlike other anesthetics, which must be injected into the nerves or pulp of the teeth, Dr. Hartmen's fluid is applied to the dentin, the substance which forms the bulk of the hard part of the teeth. It takes a minute or a minute and a half to take effect and the pain-killing effect lasts from twenty minutes to an hour, giving plenty of time to prepare almost any cavity for filling, Dr. Hartman explained. There are no unpleasant after effects and the pulp of the tooth remains normal.

The chemical composition of the desensitizer has not been announced and the fluid is still nameless. Patent rights for it have been assigned by Dr. Hartman to Columbia University. It will be on the market soon, and the quality and price will be controlled by the University in order to make it available for general use and to prevent exploitation of the public.

Human patients had to serve as "guinea pigs" in the experiments leading to perfection of the desensitizer, since there is no satisfactory way of testing a pain-killer on a laboratory animal.

Discovery of this new kind of anesthetic for use in dental work recalls the fact that dentistry gave anesthetics to the world. Ether anesthesia was first used in the extraction of a tooth before its famous trial for a surgical operation at the Massachusetts General Hospital, Boston, in 1846. William Thomas Green Morton, who gave ether its first public demonstration as a surgical anesthetic, had been a dentist before he studied medicine.

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MEDICINE

Unborn Animals New Allies In Fight On Disease

UNBORN baby animals are the latest allies of medical investigators in studying virus diseases such as infantile paralysis and smallpox.

This new approach was reported to the Society of American Bacteriologists by Dr. Oram C. Woolpart of Ohio State University and associates I. S. Neiman, Joseph Stritar, N. Paul Hudson and Floyd S. Markham of Ohio State University and the University of Chicago.

Unborn guinea pigs, these investigators found, can be infected with the "germs"—virus or bacillus—of smallpox, tuberculosis, diphtheria and submaxillary gland disease. The animals were more susceptible to these diseases before birth than after, it was also found. Infantile paralysis virus, however, did not produce the disease in the unborn animals.

The studies are important because they show that in the fetus or unborn animal scientists have a good "control" for their studies of disease germs. Ordinarily unborn animals are free from disease germs, becoming infected at birth or soon after. When a scientist needs to produce a disease in an animal to study it and learn how to protect humans from it, he needs disease-free animals to serve as controls for comparison. The fetus now seems to be the solution of this problem.

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