

medical sciences notes

BLOOD

Pasteurized plasma cuts hepatitis risk

Scientists at the Ludwig-Maximilians University in Munich, Germany, claim to have discovered a way to prevent infectious hepatitis from being carried by blood transfusions. They heat the blood cells to 185 degrees F. in a glycerol solution and pasteurize the plasma, the fluid part of blood.

Reporting to the 85th congress of the German Surgical Society in Munich, Prof. Rudolf Zenker, chief of the surgical clinic at the university, admitted that the cost of installing apparatus for this procedure is high, but said the frequent transmission of hepatitis infection during blood transfusions makes it mandatory to set up a sure system of prevention.

ANESTHESIA

Safety features in new product

A new general anesthetic, ketamine hydrochloride, is described as the safest ever developed. This is the opinion of Dr. Guenter Corssen, chairman of the Medical College of Alabama's department of anesthesiology in Birmingham.

"One of the reasons the drug is so safe," Dr. Corssen told the International Anesthesia Research Society, "is the absence of impaired respiratory function."

Ketamine, which he first tried on prison volunteers while professor of anesthesiology at the University of Michigan, is neither a barbiturate nor a narcotic, and unlike conventional anesthetics, it does not depress all areas of the central nervous system. It leaves the patient with his eyes open but disconnected from his surroundings and unresponsive to pain.

It can be injected, and the effects last only eight to 10 minutes if given through the vein, or from 20 to 40 minutes if given through the muscle. Thus it is particularly useful in dental extractions and other types of oral surgery.

"Another safety feature," Dr. Corssen explains, "is its lack of organ toxicity. It can be administered many times to the same child. This quality is particularly important for the many dressing and position changes required in the care of burn patients."

SIGHT

Plastic lens aids blind

Five blind patients have had their sight restored, at least temporarily, by a tiny plastic contact lens glued to the corneal surface of the eye, a University of Florida ophthalmologist reported to the Centennial Symposium at Manhattan Eye, Ear and Throat Hospital.

Dr. Herbert E. Kaufman said that fitting an eye with the EKP, or epikeratoprosthesis, can be accomplished by a physician in 10 minutes. The treatment requires no hospitalization, and there is no hazard in the surgical procedure.

The diseased or damaged outer covering of the cornea is removed and the protective layer of plastic is bonded to the cornea, using minute amounts of plastic glue.

Diseases of the eye successfully treated by Dr. Kaufman, with Dr. Antonio Gasset, include corneal dystrophy, a degeneration of the cornea occurring with age; and pain and blindness associated with blistering of the corneal surface. Pain was markedly decreased, and vision, while not good enough to handle small print, was improved to a level permitting the patient to be fully active. In more severe afflictions resulting from exposure or scarring of tissue around the eye, the results have been equally satisfactory.

The idea of providing artificial protection to the cornea is not new, Dr. Kaufman says, but this is the first time the process has been successfully carried out. It was preceded by work with rabbits and monkeys that still retain the plastic coverings without irritation after four months.

"The technique is still experimental," Dr. Kaufman admits. "We don't know yet how long the lens will stay in place or what late changes may occur in the eye, but it looks promising. Even if the glue should wear away, the epithelial tissue grows over the edges like a collar, and may hold the lens in place. If the EKP should cause some difficulty, it can easily be lifted off."

MEASLES

Millions still unvaccinated

About seven million infants and children in the United States remain susceptible to common measles, despite the strides made toward eliminating the disease.

Between 1963, when the measles vaccines became available, and the end of 1967, more than 25 million children were vaccinated, Dr. H. Bruce Dull, assistant director of the National Communicable Disease Center in Atlanta, Ga., reports.

But approximately 600,000 unvaccinated children got measles in 1967, and some 600 of them developed measles encephalitis, or brain inflammation. Of this number about 200 suffered mental retardation.

The single-shot Schwarz-strain vaccine made up about 80 percent of all measles vaccines administered in the U.S. last year.

AUTOTRANSPLANT

Stored ear sewn back on

Cartilage from a man's ear, which was severed in an accident last April, has been sewn back on. Soon after the accident doctors sewed it in the man's abdomen to keep it alive (SN: 5/25, p. 504). They decided not to sew it in place at the time because of tissue trauma and the risk of infection.

The man, a 31-year-old trotting driver, lost part of the ear in an accident at Gloucester Park on Easter Monday.

At the Royal Perth Hospital, a plastic surgeon has now removed the cartilage from the man's abdomen where, the surgeon said, the cartilage had been well nourished. It showed no signs of deterioration.

The surgeon sewed the cartilage in place and draped skin over it in ear-like contours.

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