

medical sciences notes

LASER EFFECTS

Industrial workers exposed

Potential risk to thousands of industrial employes is seen unless industry shoulders responsibility for the safety of those who work with lasers.

A Massachusetts survey sponsored by the U.S. Public Health Service is the basis of the estimate that 10,000 employes in the United States are exposed to eye damage and burns from the dangerous light beams.

The study does not reveal that any individual worker has been hurt by laser exposure, but indicates that 60 percent of laser workers face possible risk.

The Massachusetts survey compiled information on the use of 267 lasers in 43 establishments. About 10 percent of the nation's laser operations are done there.

Findings of the Massachusetts study:

- Only about half of the industry in the state required a medical examination before employes were assigned as laser operators.

- Only about a quarter of the plants have specific requirements for visual safeguards in laser areas, and most did not require goggles or face shields; about one-fourth of the goggles used were inadequate.

- Only a few of the establishments used warning signals to designate laser areas.

PRESERVATION

Human parts to be readied

Long-term freezing of hearts, lungs, kidneys and entire gastrointestinal tracts so they will be quickly available to replace diseased or nonfunctioning parts of the human body is being tested at the University of Pennsylvania Hospital in Philadelphia.

Dr. Herndon B. Lehr, a plastic surgeon who created the hospital's skin bank, said to be the nation's first, will be the principal investigator under a three-year, \$300,000 grant.

The grant is from the John A. Hartford Foundation, which has previously given funds to the hospital research team for preserving small bowels and parathyroid glands as well as skin.

Although efforts in kidney preservation so far have not been successful, Dr. Lehr believes that equipment to thaw such large organs rapidly will lead to a method for successfully preserving both the kidney and liver.

PROSTATE CANCER

Study shows risk in hormone therapy

Standard treatment for cancer of the prostate has been surgery or female hormones, or both. The Veterans Administration now questions the administration of estrogens (diethylstilbestrol is the one usually recommended) because after studying 2,000 patients under this treatment, it finds a higher death rate from cardiovascular disease than when patients were under other treatment.

A discussion in the March 25 issue of MODERN MEDICINE by five physicians indicates that more deaths occur from heart attacks or strokes in such patients than

would occur from prostatic cancer untreated by female hormones.

Dr. Willet F. Whitmore Jr. of the Memorial Hospital for Cancer and Allied Diseases, New York City, says, "to be acceptable, treatment must entail risks that are less than the risks of the untreated disease."

He agrees with Dr. R. H. Flocks of Iowa City, Iowa, that it is better to begin the estrogen treatment, if it is given, after symptoms of metastases, or spreading, occur. However, Dr. Whitmore says that among the patients who received this therapy early and those who received it after metastases, "no significant survival differences were evident."

Also, no significant survival differences were "evident among patients who received estrogen or castration or both."

ERADICATION

Mexico takes vaccine to hinterland

The campaign to eradicate measles in Mexico is going into the hinterland areas. Mobile brigades will use live virus vaccine produced in laboratories of the Republic's Department of Health.

Measles kills 10,000 Mexican children a year.

TRANSPLANTED VALVES

Three heart valves from pig

An English team has transplanted three heart valves from a pig into a woman.

Single pig valves have been implanted in humans before, but this is believed to be the first time three such valves have been transplanted. The recipient (on March 25) was Jean Bastow, a 38-year-old mother of two children.

There are four heart valves: the aortic, the mitral, the tricuspid and the pulmonary. In cases of rheumatic fever and resulting heart disease, the first three valves are usually affected.

Some surgeons believe that the use of artificial valves is safer because with new materials they are not likely to cause clotting or be rejected. Dr. Charles A. Hufnagel of Georgetown University, who has perfected several valves, has used Dacron successfully in aortic and mitral valves. He has implanted both valves in the same patient.

FOOD SUPPLEMENT

Fish meal reduces harm of sugar

The cookies and candy bars that children love to eat may some day be made into nutritional boosters that will fight tooth decay, a scientist from the National Institute of Dental Research told The International Association for Dental Research meeting in San Francisco.

Fish protein concentrate, already suggested to combat starvation, reduces the ability of sugar to cause tooth decay in laboratory rats—and might do as much for humans, Dr. Robert M. Stephan of Bethesda, Md., reports. He suggested it could be added to sweet foods to make them more nutritious and less likely to harm teeth.

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