

MEDICINE

X-Ray Sterility Offset

Gland treatment partially restores fertility to female mice exposed to radiation. Other reports from meeting of anatomists follow.

► TO A CHRONICALLY atom-jittery world there may be some significance in a report on the partial recovery of female mice after sterilization with X-rays, presented before the meeting of the American Association of Anatomists in Montreal by Dr. J. M. Essenberg of the Chicago Medical School.

As is well known, one of the worst effects of the intense burst of radiation, including X-rays, given off by an atom-bomb is the damage to sex glands that renders both men and women sterile, at least for a time. How much time is required for recovery, or even whether recovery occurs at all in some cases, has not yet been determined, nor is it known what treatment is called for in such cases.

Dr. Essenberg began his investigations on a mouse-sized scale. He exposed a number of young female rats to X-rays in doses heavy enough to cause sterilizing damage to their sex glands. Into the bodies of some of them he made a series of implants of bits of pituitary gland, which is a ductless gland in the head, whose secretion normally promotes the development of sex glands. To others of the sterile mice he gave a commercial preparation of such a sex-gland-promoting substance.

Examination of the ovaries of the sterilized mice thus treated showed some signs of resumption of normal function, though not full recovery. Further work will be required to determine if full recovery is possible under such treatment.

Sulfa Drug Cuts Fertility

In the meantime, one of the sulfa drugs used to combat germ diseases has been placed under indictment for causing lowered fertility, in a paper by Dr. Philip V. Rogers of Hamilton College, who spoke before the meeting.

Sulfaguanidine, in much larger relative quantities than would ever be used for medical purposes, was given to young laboratory rats in their food. Then males and females were placed in breeding cages, and results awaited.

In some cases, the pairs simply didn't

mate. In others, no offspring resulted. For the entire group, the average litter size was less than one-third what it had been when the same animals were bred on a drug-free diet.

Polio Can Distort Faces

We are used to thinking of poliomyelitis in terms of children hobbling about bravely with braces on withered legs; but it hits other parts of the body as well. Dr. William M. Rogers of the College of Physicians and Surgeons, Columbia University, told of cases of polio of the face that have come under his observation. The disease caused a wasting away of certain bones as well as of the muscles, offset by an overgrowth of muscles on the opposite side. The result was a marked distortion of the face.

"Shots" Without Needles

If you are one of those who shrink from the inevitable jab of the needle when a "shot in the arm" is necessary, you can take cheer from the new method announced before the meeting by Dr. Frank H. J. Figge and Dr. Robert P. Scherer of the University of Maryland School of Medicine. Taking a hint from accidents that have happened around diesel engines, where extremely fine, high-pressure oil jets from leaky injectors have pierced human skins, they have devised a way of doing the same thing intentionally with a considerable variety of medicinal preparations. They tried it out first on cadavers in the laboratory, then on living volunteers. They claim it gets the dose in deeper and through a larger volume of flesh than the conventional needle method; also (what probably counts most from the patient's point of view) that it hurts less.

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MEDICINE

Vitamin E Lack Makes Weak Spots in Heart

► LACK of vitamin E in the diet may be a cause of heart failure, if results

obtained with rabbits are of wider significance. Rabbits kept on diets lacking this vitamin developed weak spots in various parts of the heart muscle, it was reported to the meeting of the American Association of Anatomists by Dr. Arthur J. Gatz of Loyola University Medical School and Dr. O. Boyd Houchin of the University of Louisville School of Medicine.

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BOTANY

California Big Trees Can Be Young Even Though Huge

► CALIFORNIA Big Trees, as everyone knows, are the biggest and oldest things on earth. But they aren't all old, and they didn't get big over night; young ones are starting all the time, and growing up into lusty youth. Such a tree is shown in the illustration: it is a half-century old. In 1898 Prof. William E. Ritter of the University of California, later one of the founders of Science Service, took his young wife to see Yosemite National Park. The superintendent of the park gave Mrs. Ritter a seedling Big Tree, which she planted alongside of the then new Ritter residence in Berkeley. The seedling was in either its second or third season of growth, which would make it either 50 or 51 years old now.

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YOUNG TREE—This big tree is only 50 or 51 years old.