
Drug for heart attack patients

Several studies have suggested that a drug called sulfinpyrazone (trade name Anturane) can reduce sudden deaths, especially sudden heart-attack related deaths, in persons who have had heart attacks (SN: 2/9/80, p. 86). But last spring the Food and Drug Administration refused to approve sulfinpyrazone for prevention of heart attack deaths in heart attack patients on the basis that the scientific studies supporting such use contained major flaws (SN: 5/3/80, p. 279). The drug's manufacturer, Ciba-Geigy Corp., has contested this decision.

Meanwhile another drug — timolol maleate — is showing signs that it may serve the same treatment purpose, according to a report in the April 2 *NEW ENGLAND JOURNAL OF MEDICINE* by Terje Pedersen of the University of Bergen in Norway and his colleagues. Pedersen and his colleagues have found, in patients who have had heart attacks, that timolol is highly effective in preventing additional heart attacks and cardiac-related deaths.

Pedersen and his team conducted a multicenter double-blind randomized study to compare the effect of timolol (10

mg. twice daily) with that of a placebo in patients who had survived an acute heart attack. Nine hundred and forty-five patients got timolol and 939 received a placebo starting seven to 28 days after their heart attacks. The patients were then followed for 12 to 33 months (a mean of 17 months) to see how many in the treatment group and how many in the placebo group had subsequent heart attacks or died from cardiac-related problems. Even the patients who dropped out of the study before it was over (29 percent of the treatment group and 23 percent of the placebo group) were followed up for 28 days after they left the study. (In an accompanying editorial, Peter Sleight of the John Radcliffe Hospital in Oxford, England, praises the researchers for following up even the patients who dropped out of the study and including their fates in the final analysis because such a procedure helped prevent distortion of the study's results.)

By 33 months of follow up, Pedersen and his co-workers report, 20.1 percent of the placebo group had been diagnosed for another heart attack, whereas only 14.4 percent of the timolol group had, which was a reduction in reinfarction of 28.4 percent — a significant reduction. What's more, there were cardiac-related deaths in 113 of the placebo group, but in only 58 of the timolol group. □

Refusing medication: Legal battle goes on

Two court cases involving the rights of involuntarily committed mental patients to refuse drug treatment are being appealed, one to the Supreme Court and the other to a Federal Court of Appeals. These cases will have a significant effect on the care of the 220,000 patients in the nation's mental hospitals.

Massachusetts Attorney General Francis X. Bellotti filed a petition for a writ of certiorari on Feb. 20, asking the Supreme Court to review a Federal Appeals Court decision in the case of *Okin v. Rogers*. In 1979 a Federal District Court judge ruled in favor of seven hospital patients at Boston State Hospital by barring doctors from forcibly secluding or medicating patients except when there was a serious threat of harm or as a result of extreme violence, personal injury or attempted suicide. Last November the appeals court asked the district court to establish procedures for carrying out the ruling. Bellotti now is arguing that state hospitals will become caretaking institutions if they cannot use drug treatments. He says that the defendant doctors used acceptable medical practice and did not violate "clearly established institutional rights."

In New Jersey, state lawyers are asking the United States Court of Appeals for the Third Circuit in Philadelphia to overturn a Federal District Court ruling in effect since January 1980. The decision held that mental patients who have been involuntarily

committed but who have not been declared legally incompetent by a judge have a constitutional right of privacy to refuse antipsychotic drugs regardless of doctors' orders. The suit was filed in December 1977 by a patient in a state institution. The judge also ruled that New Jersey must provide informed consent statements to all patients, listing adverse effects of antipsychotic drugs, and establish independent counseling and psychiatric review for patients who wish to refuse medication. New Jersey psychiatrists say that patient violence has increased and staff morale has deteriorated at state institutions since the court ruling. They add that medical decisions should be left to doctors, not lawyers and judges. But the controversy over forced medication has been heightened by recent findings that many antipsychotic drugs can create central nervous system problems, including irreversible damage after prolonged use (SN: 5/24/80, p. 335).

A spokesman at the Massachusetts Attorney General's office told *SCIENCE NEWS* that the Supreme Court's action will affect the way both cases turn out. If it denies a review to the Massachusetts case, the New Jersey appeal will stand on its own. If it grants a review, its decision will supersede any other ruling. But it might take the New Jersey case into account if the court of appeals ruling is handed down before a Supreme Court decision is made. □

Mouse clone, for sure

One set of mouse triplets and one set of mouse twins are evidence that multiple copies, or clones, of a mammal can be produced by manipulation of cell nuclei. Although earlier work has been referred to as "cloning," it involved transfer of nuclei from different mouse embryos into egg cells and thus did not give genetically identical mice (SN: 7/28/79, p. 68; 1/17/81, p. 37). Now Karl Illmensee of the University of Geneva reports successful transplant of two from one embryo and three nuclei from another. According to the April 10 *SCIENCE*, Illmensee finds that nuclei from only two embryonic tissues yield new mice. The question remains whether any nuclei from an adult animal retain the potential to direct development of a genetically identical individual. □

Gene-splice diagnosis

Hepatitis B can now be diagnosed with an application of recombinant DNA techniques. Researchers at the Bethesda Research Laboratories of Gaithersburg, Md., have announced a method of detecting as few as 300 virus particles in a patient's blood serum. Genetic engineering techniques are used to produce large quantities of DNA, radioactively labeled, with the same subunit sequence as DNA of the hepatitis B virus. A hepatitis B infection is indicated by binding of this radioactive DNA to DNA taken from a patient's blood serum and split into single strands. Similar methods may allow simple diagnosis of other infectious diseases. □

Tiny baubles

Who made those numerous ancient coins, seals, gems and trinkets that are so exquisitely engraved in minute detail? This question has puzzled archaeologists for years, and because some of the workmanship is barely visible to the naked eye, the usual answer has been — someone with a magnifying glass. The ancient Greeks used magnifying lenses to start fires, but most historians agree that such lenses were not used as visual aids until the 13th century when Roger Bacon (and possibly others in China and Italy) invented eyeglasses. Now another answer is proposed by researchers at the State University of New York at Stony Brook in the current issue (Vol. 23, No. 2) of *EXPEDITION*. They suggest nearsighted artisans. The particular advantage of the myope, they explain, is the ability to see small objects magnified with clarity when held close to the eye. Myopia, they continue, is hereditary, and castes, guilds and families specializing in engraving may even have provided selective pressures for this trait. □