

medical sciences notes

Gathered at the American Medical Association convention in San Francisco

AUTO SPEED

Fast police pursuit dangerous

More than 500 Americans die and over 1,000 sustain major injuries each year as a result of rapid police pursuit of lawbreakers, most of whom are guilty of only minor traffic offenses.

The cure is worse than the disease, warns Dr. Seymour Charles, president of Physicians for Automotive Safety.

A study conducted by the organization discloses that one out of five pursuits ends in death; seven of 10 end in an accident; five of 10 end in serious injuries; one of 25 killed in a pursuit is a policeman; three of four pursuits are for minor offenses.

The group recommends that pursuit speeds be limited to no more than 20 miles an hour above the speed limit, and then only in the case of violent crimes and felonies.

NICOTINE

Smoking can cause nervousness

The reason boys who sneak behind the barn or back fence to smoke get spells of vomiting is that the nicotine releases serotonin, a powerful adrenalin-like chemical, from storage deposits in intestinal tissue, a researcher for the AMA's Education and Research Foundation finds.

Dr. Jeremy H. Thompson of the University of California at Los Angeles based his conclusions on experiments with rats. However, he said that known effects of nicotine on humans include sweating, flushing of skin, intestinal constriction and nervous behavior.

Dr. Thompson's report was part of a session on research on tobacco and health that outlined results of four years of work by more than 100 grantees.

Although the AMA's House of Delegates in 1964 stated that there is "a significant relationship between cigarette smoking and the incidence of lung cancer and certain other diseases, and cigarette smoking is a serious health hazard," research is still being aimed at "mechanisms by which cigarette smoking might affect health."

The tobacco industry in 1964 contributed \$10 million for research on such mechanisms; last month the AMA accepted another \$8 million to continue the work. The AMA Committee for Research on Tobacco and Health says the problems related to "establishing any kind of cause and effect relationship between tobacco use and health are far more complex than had been supposed."

BROKEN LEGS

Quick walking on casts successful

A military medical exhibit shows how 63 patients with broken legs were up and walking in long casts in a short time—many of them within 24 hours.

Most of the men were wounded in Vietnam, and several had injuries in addition to the broken leg. Each had a fracture below the knee of the large leg bone or tibia, with an external wound leading to the break.

Treated at the Army's Fitzsimons General Hospital

in Denver, most of the men eventually returned to active military duty. Most of them wore the casts about 19 weeks, but some were able to shed them in less than half that time.

While the amount of weight that could be tolerated on the broken leg varied with the individual, most of the men preferred to be up and about to lying in bed with the leg elevated.

The exhibitors, Col. Paul W. Brown and Maj. James G. Urban, both military physicians, said "we deliberately chose the worst and most unstable group of fractures to illustrate the method and its results."

KIDNEY

Implanted artery helps blood flow

Safer kidney operations on humans are foreseen as a result of a new surgical procedure designed to increase the blood flow to the organ.

In kidney operations, surgeons must often cut across major arteries, thus posing a threat to the life of the kidney. The new surgery, successful in more than 70 dogs, will bring a new blood supply via the splenic artery.

Dr. Harry S. Goldsmith of the Sloan-Kettering Institute for Cancer Research in New York City, explained that he and his co-worker, Dr. Jose Castillo, first made an incision in the dog's abdomen, removed the spleen, and tied off the splenic artery. The length of this artery permits it to be implanted in either kidney.

In all cases the opposite kidney was removed to eliminate the possibility that it compensated for the kidney that had undergone the implant. Follow-up studies on the animals after six to 12 months showed that the splenic artery was distributing blood throughout the kidney in a uniform way and that the kidney was functioning normally.

The procedure may prove to be extremely valuable in persons with malignant tumor of the kidney, Dr. Goldsmith said.

BURNS

Ointment speeds healing

Forty-six deep-burn patients—21 of them Vietnamese who were treated in unsanitary hospital surroundings—remained free of infection and achieved rapid healing after application of a newly synthesized drug in ointment form.

Silver sulfadiazine, which was synthesized in a laboratory at the Columbia University College of Physicians and Surgeons in New York City, combines components of two other drugs used to prevent burn infection—silver nitrate and a sulfa complex. But it functions through a different mechanism of antibacterial action.

The chemical bond in the compound is such that the antibacterial silver is released slowly, preventing wasteful reactions with the wound fluids.

Dr. Charles L. Fox Jr. of Columbia headed the team making the report.