

Men only: Aspirin prevents clotting

Four aspirins a day seem to protect men from developing blood clots after surgery, according to a study by William H. Harris of Massachusetts General Hospital and colleagues. Unexpectedly, such a dose of aspirin does not appear to protect women. The researchers report this surprising finding in the Dec. 8 *NEW ENGLAND JOURNAL OF MEDICINE*.

The number of men who developed blood clots in their veins after total hip replacement surgery was three times greater for those taking a placebo than for those taking aspirin. The subjects, who were all over forty, were given the medication or placebo from one day before surgery until several weeks afterwards. Blood clots, which are common in surgery patients older than forty years of age, can become lodged in the lungs and kill the patient. This study, the authors say, is the first rigorous evidence that aspirin protects against blood clots in a high-risk group of surgery patients.

The researchers cannot yet explain why aspirin did not affect the female subjects. In retrospect, they find such a difference did occur in a previous study. Harris suggests some interaction between aspirin and sex hormones.

Brain opiate gives human relief

A morphine-like substance, discovered a year ago in camel and sheep pituitary glands, is being tested for human applications. Last September researchers presented clinical evidence that the chemical, beta-endorphin, may be useful in treating schizophrenia and depression (SN: 9/17/77, p. 182). Now Don H. Catlin of the University of California in Los Angeles reports preliminary experiments showing that beta-endorphin reduced severe pain in three advanced cancer patients and also relieved symptoms of two narcotics addicts undergoing withdrawal.

In Catlin's experiment, the patients received injections of alternating doses of beta-endorphin, morphine and a salt solution control. The beta-endorphin used was synthesized chemically by C.H. Li of the University of California in San Francisco. Catlin emphasizes that more trials will be required to ascertain that the relief experienced is due solely to beta-endorphin.

Birth problems not linked to abortion

Legal abortion by competent medical personnel is a relatively safe procedure. But statistics from various countries differ as to whether or not an abortion has deleterious effects on a woman's subsequent pregnancies. Abortions have now been legal in the United States long enough to permit analysis of the experience of American women. Identifying any effects on subsequent pregnancies is particularly important here because many of the women undergoing abortion are young and plan to bear children later.

Janet R. Daling of the Washington State Department of Social and Health Services and Irvin Emanuel of the University of Washington analyzed 4,896 pregnancies recorded in Seattle between 1972 and 1976. Women with histories of abortion and women without prior abortions were paired on the basis of age, number of pregnancies, previous fetal deaths and socioeconomic status. The investigators report in the Dec. 8 *NEW ENGLAND JOURNAL OF MEDICINE* that abortions do not affect any measure of fetal or infant health, including low birth weight, premature delivery, still-birth, neonatal death, miscarriage or congenital malformations.

The investigators also analyzed separately matched samples of women giving birth to their first children, with or without a prior abortion, and women less than 20 years of age. Again there were no differences in pregnancy outcome, duration or birth

weight. Daling and Emanuel say, "The results of this study suggest the possibility that, for young women, abortion has a less deleterious effect than the natural completion of the first pregnancy on subsequent outcome of pregnancy."

Baby fat is short-lived obesity

Babies born fat do not necessarily stay that way, according to a British study. By their first birthday they are just as likely to be thin as are babies who are leaner at birth, says Andrew Whitelaw of Northwick Park Hospital in Harrow. In the Nov. 26 *LANCET*, Whitelaw describes a survey of obesity in infants. He measured the thickness of a pinch of skin in each of eight locations on 114 babies. (Skin folds are a standard measure of obesity.) "Groups of infants who were obese, normal, or thin at birth had virtually indistinguishable mean skinfold thickness at one year," Whitelaw reports. This finding is inconsistent with the hypothesis that overnutrition late in pregnancy permanently affects the fatness of the child.

The one-year-old infants in this study were considerably leaner than a group surveyed nine years ago. Whitelaw finds that the rate of breast feeding has risen in those years and that infants are now being introduced to solid foods at a later age. He concludes, "Recent warnings against overfeeding in infancy may be changing feeding practices, resulting in slimmer one-year-old children."

Slightly hot spots reveal cancer

A safe, accurate test for early diagnosis of breast cancer could save the lives of many women. Mammography is an effective screening method, but that technique is now fraught with controversy because X-rays can cause, as well as detect, breast cancer (SN: 9/24/77, p. 197).

A new technique, potentially both safe and sensitive, has been announced by researchers at Memorial Sloan-Kettering Cancer Center in New York. The test identifies benign and malignant tumors by small differences in the thermal output. A miniature heat detector is used to compare the temperature of the forehead to the temperatures of nine sections of each breast. "Because the test is entirely non-invasive, it is an ideal screening device for large numbers of asymptomatic women," says investigator Ruth Snyder.

Thermal patterns previously used in cancer detection were not effective for early breast cancer. In recent tests of 282 patients, the new method was 80 percent accurate for cancer and almost 100 percent accurate for benign tumors. The distinction between benign and malignant tumors is made after the patient plunges her hands into cold water. Malignant tissue remains at its high temperature, while benign tumors cool.

Birth control at a sniff

A nose spray of hormones can be an effective contraceptive in female rhesus monkeys, report T. C. Anand Kumar and colleagues at the World Health Organization Collaborating Center for Research and Training in Human Reproduction in New Delhi. They find that steroid hormones can enter the brain more effectively after intranasal administration than after intravenous injection. The hormones can then act on brain structures involved in regulation of sex hormones.

The researchers had their clearest success with norethisterone, a synthetic hormone widely used in contraception. A daily spray of norethisterone solution for 10 days stopped the monkeys' ovulation. The researchers suggest in the Dec. 8 *NATURE* that a method of delivering hormone intranasally to the brain would be useful in control of human fertility.