

BEHAVIOR

Bypass: Surgery on a marriage

Intestinal bypass surgery is largely considered a risky operation but worthwhile for very obese people unable to lose weight by more conventional methods. The list of rewards reeled off by proponents includes a more healthy, attractive body, more self-confidence and improved interpersonal relations.

But as more such operations are performed, a collection of subtle risks is becoming apparent. Such risks deal with the emotional components of the successful bypass patient and her or his spouse.

In a report in the August 4 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, psychiatrists and surgeons at the University of Kentucky and the University of Wisconsin report "striking changes" in the relationships of bypass recipients and their spouses. Only one of the 14 patients surveyed (12 are women) denied any change. "The others described varying amounts of turmoil, ranging from brief disruptions to rather severe upheavals threatening the marriage. Two patients were eventually divorced and one other planned separation at the time of the interview," report John R. Neil of Kentucky and John R. Marshall and Charles E. Yale of Wisconsin.

Some of the changes following the massive weight loss emanated from a sense of insecurity and threat on the part of the spouses. "I suppose you will find someone better now ... with legs as attractive as those, I'm sure you will find another man," said one husband.

Many of the patients themselves reported an increased level of interest in sexual fantasies and intercourse, felt sexually attractive, flirtatious and more willing to initiate sexual encounters, according to the researchers. But whether they acted on such thoughts or not, their spouses in many cases sensed the changes and reacted to them.

"Most of the patients were obese when mutual mate selection occurred," say the researchers. "Subsequent interactions within the marriage ... reinforced the meaning of obesity for the couple." In such marriages, obesity appears to have been a stabilizing influence, they suggest, which was upset by surgery for weight loss.

Language emerges first in girls

For nearly 40 years, psycholinguists have puzzled over the question of whether girls acquire language before boys do. Initial studies in the 1930s and 40s showed consistent evidence that girls were more advanced. But recent research shows no sex differences.

"Have girls and boys changed, or is there perhaps another reason for this discrepancy between older and newer findings?" a team of researchers from Columbia University's Barnard Toddler Center asks in the July *DEVELOPMENTAL PSYCHOLOGY*. The investigators — Frances Fuchs Schachter, Ellen Shore, Robert Hodapp, Susan Chalfin and Carole Bundy — examined numerous previous studies and tested 130 toddlers, with sexes matched for age, class and race.

They determined that recent research actually may have employed techniques inferior to those used years ago, and that "girls still seem to talk earlier." In studying both younger (mean age 23.8 months) and older (28.6 months) toddlers, the Columbia team found that in each case toddler girls "were significantly advanced" in mean length of utterance — a measure of words and word structures that they say "best reflects progress during this phase." Newer studies have tended to ignore the MLU measure, they say, focusing rather on verbal fluency, vocabulary and language comprehension. The researchers attribute much of the discrepancy to this change in measurement techniques over the years.

BIOMEDICINE

Mummy with a defect

Aside from their archaeological contributions, mummies are also showing that so-called "diseases of modern civilization" may be ho-hum, old hat indeed. For instance, rheumatoid arthritis inflamed the spinal column of Amenophis II, ruler of Egypt from 1436 to 1413 B.C. The mummy of Tutmose I (ruler from 1528 to 1510 B.C.) showed thick cartilage of the knees, suggesting pseudogout. Other mummies have revealed hardening to the arteries, dislocated vertebrae and even polio.

Now a mummy with a genetic disease that creates a condition called ochronosis is reported in the July 14 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* by Frederick F. Stenn of Northwestern University Medical School and Sandra L. Lee, now at Harvard University Medical School. "Our study," the researchers say, "provides the first definitive evidence for the diagnosis of ochronosis ... in an Egyptian mummy."

The genetic disease affecting the mummy is called alkaptonuria. It is an inborn error of metabolism of the amino acid tyrosine where the enzyme homogentisic acid oxidase is absent. Consequently, the normal metabolite of tyrosine, homogentisic acid, accumulates in body fluids and leads to the deposition of dark pigment called ochronosis in hip, knee and shoulder joints. Ochronosis inflames the joints and narrows their spaces.

Lee and Stenn have diagnosed ochronosis in an Egyptian mummy, Harwa, lent to them by the Field Museum of Natural History in Chicago. Harwa, who died in his early 30s, lived approximately 3,500 years ago. X-rays of the mummy reveal narrowing of hip and knee joints. Tissue from the mummy's right hip joint space also reveals ochronotic pigment derived from homogentisic acid.



Another prostaglandin drug

Since their discovery in 1935, purification in the 1940s, isolation in the 1950s and biosynthesis in the 1960s, the local hormonal messengers, prostaglandins, have shown vast potential as drugs. In 1972, 1973 and 1974, three prostaglandin medications were marketed in Britain and the United States for labor induction, trimester abortion and ovulation induction in cattle and horses. By 1975, clinical trials were underway on prostaglandin drugs for ulcers, peripheral hardening of the arteries, high blood pressure and some other diseases (*SN*: 9/20/75, p. 185). Then in 1976 a new member of the prostaglandin family was identified and dubbed prostacyclin.

Upjohn Co. researchers Roy A. Johnson and Eldon G. Nidy reported at a recent international symposium on the chemistry and biochemistry of prostaglandins that Upjohn scientists have succeeded in making analogs of prostacyclin that may eventually be used to treat high blood pressure and heart disease.

Prostacyclin appears to be made in the blood vessel wall by a substance called eicosapentaenoic acid, according to a team of Danish and British researchers in the July 15 *LANCET*.

The investigators also point out that Eskimos have a high level of this acid in their bodies, a tendency to bleed (which one would expect if they had a rich supply of a blood clot inhibitor in their bodies) and a low incidence of heart attacks. So the researchers suggest that ingestion of this acid, either in the diet or as a dietary supplement, might reduce the risk of heart attacks and strokes. One possible source of this acid is margarine.