

cleaning out the regurgitated material is necessary when these positions are employed. The patients of inexperienced anesthetists aspirate more commonly than do those of experienced anesthetists. . . . Gastric tubes exert a protective effect, presumably by keeping the stomach contents low in volume. An empty stomach is an absolute essential in the prevention of either frank vomiting or silent regurgitation and aspiration of gastric contents during anesthesia and surgery."

A. A.

KROHN, SIDNEY; SPRIGGS, J. B., AND DABBS, C. H.: *A New Method of Postoperative Anorectal Analgesia*. *Am. J. Surg.* 82: 275-277 (Aug.) 1951.

"Alleviation of discomfort experienced by individuals following anorectal surgery presents a problem which heretofore has not been satisfactorily answered. Previous methods of injection with local anesthetics have proved effective in relieving discomfort, but have not been widely employed because of the relatively high incidence of undesirable tissue reaction. . . . The thought occurred to us that the undesirable feature of pooling might be avoided by using hypospay rather than needle injection. . . . Because there were no available data describing the effect of oil anesthetics injected into humans by this method, preliminary study was done on animals. . . . Twenty-nine male patients undergoing anal surgery were given xylocaine in almond oil by hypospay injection and the degree of postoperative discomfort compared with a control group of the same number similar in age, sex and degree of severity of hemorrhoids. . . . The degree of sphincter spasm, pain on defecation and tenderness on digital examination was much less in the treated group than in the

control group. These findings are in agreement with the results reported by others using needle injection technique of oil anesthetics. In contrast to previously reported techniques, however, no tissue reactions were encountered in any of the twenty-nine patients whom we treated. Sites of injection were inspected daily throughout the hospital stay (eight to ten days) in all cases. No evidence of edema, erythema, induration, abscess or slough was encountered during hospitalization nor at the time of reexamination three weeks following discharge. Despite the relatively small number of patients treated, the complete absence of any detectable inflammatory reaction at the site of injection encourages us to report this technic. Additional clinical trial seems justified on the basis of these results."

A. A.

ELMAN, ROBERT; WEICHELBAUM, T. E., AND GRAUL, MARJORIE A.: *Significance of Postoperative Glycosuria and Ketonuria in Nondiabetic Adults*. *A. M. A. Arch. Surg.* 82: 683-697 (May) 1951.

"Even though glycosuria and acetoneuria are fairly common after operation their exact significance is not generally known. Do they mean a serious disturbance in carbohydrate metabolism? Is the excretion of ketone bodies evidence of a transient overproduction thereof by the liver or of diminished utilization by peripheral tissue? Is the glycosuria the result of a diminution of peripheral utilization of glucose or of increased glycogenolysis? A number of surgical patients were observed in whom quantitative determinations of the 24 hour output of glucose and of acetone were made in an attempt to answer these questions. . . . Observations were made on 394 twenty-four hour urine specimens obtained from 78 patients undergoing a

variety of surgical procedures, all carried out with the patient under general anesthesia. No patient had any evidence of diabetes. In all cases, anesthesia consisted of induction with intravenously administered thiopental sodium (pentothal) followed by nitrous oxide, oxygen and ether, frequently supplemented with curare. All the operations were intra-abdominal and varied from a simple appendectomy to gastric, colic and abdominoperineal resections. The postoperative course was uneventful, and there were no deaths. Fifteen of the patients were observed for a period of two to five days before operation as well as for three to five days after operation. In all other cases, only the postoperative period was studied. . . .

"Glycosuria was found in 78 per cent of preoperative and postoperative specimens in patients receiving 5 or 10 per cent dextrose with or without added amino acids, alcohol or salt. The degree and incidence were slightly greater after operation, especially on the second and third days, than before. There was no evidence of increased glycosuria on the day of operation. Glycosuria tended to be greater with increased rates of infusion. The actual amounts of glucose lost varies but were surprisingly large, reaching a maximum of 25 per cent of that injected with an intake of 100 Gm. a day and of 50 per cent of that injected with a daily intake of 200 Gm. Diuresis accompanied glycosuria during the pe-

riods of infusion but was compensated by subsequent oliguria during the period when no infusions were given. This transient dehydration may be harmful in certain patients. Acetonuria was found in but 20 per cent of all specimens and showed no difference in incidence before or after operation. It was more frequent in females than in males, more frequent with a 100 Gm. dextrose intake than with 200 Gm. and much more frequent after the injection of amino acids. The total amount of ketone bodies excreted was always small, not exceeding 1 Gm. each 24 hours in all but one specimen and being probably less than 200 mg. in the rest. This degree of ketonuria is considered of little or no significance in leading to a disturbance of acid-base balance. It is probably only indicative of a subcaloric intake and of the fact that adipose tissue is supplying calories for basic metabolic needs. No evidence was found in the postoperative period that the rate of glucose assimilation could be increased by a preliminary infusion of dextrose at a slower rate. It is inferred from the present study that there is little evidence of a serious disturbance in the carbohydrate metabolism in nondiabetic adults subjected to major surgical procedures and receiving feedings intravenously. However, the degree of glucose loss may reach 25 to 50 per cent of that injected. Excessive glycosuria may be harmful by producing transient dehydration." A. A.