

BRIEFS FROM THE LITERATURE

JOHN W. PENDER, M.D., *Editor*

Suggestions and criticisms for increasing the effectiveness and appeal of this new section will be welcomed by Dr. John W. Pender, 300 Homer Avenue, Palo Alto, California.

ADRENAL INSUFFICIENCY Low adrenal reserve may be detected by time-consuming and "often unnecessary" tests. Cortisone should be given preoperatively and postoperatively to patients in whom a low adrenal reserve may be expected (*Hurxthal, L. M.: Postoperative Shock Due to Adrenal Insufficiency, S. Clin. North America 37: 715 (June) 1957.*)

ADRENAL INSUFFICIENCY Adrenal metastases were found in 32.9 per cent of 82 autopsies in individuals with metastatic carcinoma. Lung, large bowel and stomach were frequent primary sites. A case of chronic adrenal cortical insufficiency was reported in an individual with primary carcinoma of the stomach. The high incidence of adrenal metastases serves to emphasize need of evaluating adrenal cortical function preoperatively and postoperatively in individuals with malignancy. (*Leary, O. G., and Masters, J. J.: Adrenal Insufficiency Produced by Metastases from Gastric Carcinoma, Ann. Int. Med. 46: 1161 (June) 1957.*)

ADRENAL STEROIDS In 7 and 12 patients, respectively, both ACTH infusion and extensive surgery produced a rapid and comparable rise in plasma free 17-hydroxycorticosteroids. In the 12 patients there was a modest but not significant increase during the preliminary hour of anesthesia with a prompt and significant elevation by mid-surgery, followed by a gradual additional rise. A return to normal occurred in the second to sixth postoperative days. (*Helmreich, M. L., and others: Adrenal Cortical Response to Surgery: II. Changes in Plasma and Urinary Corticosteroid Levels in Man, Surgery 41: 895 (June) 1957.*)

ADRENAL STEROIDS In 21 patients undergoing cardiovascular surgery during hypothermia, some of the following results were noted. Hypothermia produced a significant mean rise in plasma free 17-hydroxycorticosteroids. Hypothermia then suppressed further adrenocortical activity during prolonged and extensive surgery. Upon rewarming adrenocortical output reflected the magnitude of the surgical trauma. (*Swan, H., and others: Adrenal Cortical Response to Surgery: III. Changes in Plasma and Urinary Corticosteroid Levels During Hypothermia in Man, Surgery 42: 202 (July) 1957.*)

ADRENAL RESPONSE Alterations in adrenocortical functions based on quantitative determination of both plasma and urinary 17-hydroxycorticosteroids were studied in 18 male patients subjected to a wide variety of major and minor surgical procedures. Free plasma 17-hydroxycorticosteroids rose promptly in the majority of procedures, reaching a peak in 4 to 12 hours postoperatively and falling to preoperative levels between 24 to 72 hours. Urinary 17-hydroxycorticosteroids were elevated postoperatively for 1 to 4 days. It is believed that general anesthesia, pain and shock are just as significant in stimulating adrenocortical response as is actual tissue trauma. (*LaFemine, A. A., Marks, L. J., Teter, J. G., Leffin, J. H., Leonard, M. P., and Baker, D. V.: Adrenocortical Response in Surgical Patients, Ann. Surg. 146: 26 (July) 1957.*)

ADRENAL SECRETION Experiment shows epinephrine secretion can be evoked by direct stimulation of areas of the cat brain cortex, indicating the presence of corticofugal fibers to the adrenals. A di-