
Five nonadenomatous pituitary glands from humans were studied. An attempt was made to classify human pituitary gland cell types by electron microscopic immunohistochemistry. The immunoperoxidase technique involving the use of peroxide-antiperoxide complex was utilized. Using specific antibodies against human prolactin, gonadotrophic hormone, (B-follicle-stimulating hormone, (B-luteinizing hormone, B-thyroid-stimulating hormone and porcine adrenocorticotropic hormone, localization of each hormone was studied.

In several types of human anterior pituitary gland cells, secretory granules are so similar in shape and size that it is almost impossible to distinguish the cells on morphologic criteria alone. Results of these studies established an ultrastructural identification on the basis of immunologic staining. Identification of five types of human pituitary cells was possible. Another cell type with small, 100 mm., secretory granules which could not be stained by any of the antisera was also observed. It was concluded that results of immunoelectron microscopy clearly indicate that the diameter of the secretory granules can differ from one species to another.

A.H. Copanna


Malignant melanoma in children under the age of 14 years is very rare, an incidence of 0.3 to 1.5 per cent; when it is diagnosed, the most difficulty arises in differentiating it from melanocytoma of Spitz, juvenile melanoma. Seventeen instances registered as malignant melanoma in children under 14 years of age were reviewed and only one that was truly malignant was found. In that one patient, the melanoma had apparently undergone intralesional transformation and had metastasized to a giant hairy nevus. The primary tumor was never found. It is stated that the incidence of malignant melanoma in children has not increased, while the incidence in adults has increased 7 per cent per year.

Richard D. Factor


Between 1971 and 1976, over 200 rhinoplasties were performed. Thirty-six per cent of the patients were treated with cartilage grafts to augment the columella and tip of the nose. The use of the cartilage grafts to augment the nasal spine, to correct the hidden columella and to give definition to the columella was described. A good discussion of the use of augmentation of nasal structures, in addition to corrective nasal surgical procedures, was presented. A comment by another surgeon pointed out that cartilage from the septum, while not mentioned specifically, is an excellent source of these small cartilage grafts.

Richard C. Shaw

A Conservative and Curative Treatment of Operable Carcinoma of the Breast

Since 1960, more than 2,000 carcinomas of the breast were treated with a conservative approach. After the diagnosis of cancer was made by biopsy, 65 per cent of the patients were treated with 6,000 rads to the breast and lymph nodes, and an additional 2,000 rads locally to the tumor and 1,000 rads to the
Preliminary excision of the carcinoma was performed in 35 per cent of patients who had Stage I carcinoma with no suspicion of rapid growth. Over-all, 39 per cent of the tumors were Stage I, 36 per cent were Stage II and 25 per cent were Stage III. Sixty-nine per cent of all patients were free of disease at five years. Twenty-five per cent later required conventional radical mastectomy because of failure of the radiation therapy. Of those who were found to have residual carcinoma at the time of radical mastectomy, 62 per cent were free of disease at five years. Therefore, 75 per cent of the patients who were free of disease at five years still had both breasts.

James D. Schlenker

The prognosis in patients with carcinoma of the lung depends on three factors: the stage of the disease at the time of diagnosis, host resistance and the adequacy of treatment. The association between staging of the disease and peripheral lymphocyte count was studied in 178 patients with histologically verified carcinoma of the lung. The tumors were staged and comparisons of peripheral lymphocyte counts among staged patients were made by standard statistical procedures. Normal distributions were then generated. A reciprocal relation between lymphocyte count and the stage of the carcinoma of the lung was identified. No correlation was made among histological cell types. The peripheral lymphocyte count is readily accessible and universally available. However, it is not sufficient by itself for clinical staging; rather, if a depressed count is found, a more extensive evaluation of metastases before therapy is indicated.

Keith Thompson

An excellent description of the use of coronary perfusion technique is presented. The technique was used in 105 consecutive patients who underwent aortic valve replacement over a seven year period. Myocardial protection, used in all, was continuous coronary perfusion, or phasic constant pressure coronary perfusion, around 80 mm.Hg, on a beating heart at 31 to 32.C, using the largest possible coronary cannulas for both coronary arteries. The Bjork-Shiley tilting disc valve was used. The mean aortic cross clamping time was 110 minutes, with a range of 60 to 240 minutes. The mortality for patients undergoing single aortic valve replacement was 4.9 per cent, with two late deaths. No stone heart or stenosis of the coronary ostium was seen in this series. The age of the patients ranged from 15 to 64 years, with an average age of 42 years; coronary angiography was not carried out routinely and no patient has a coronary bypass procedure in this group.
In discussing other means of myocardial protection during aortic valve replacement, such as topical cardiac hypothermia or cardioplegic solution, no need for changing the technique was expressed. The technique should not be changed considering the aortic cross clamping time mentioned.

P.A. Petrila