

SELECTED ABSTRACTS

Pages with reference to book, From 45 To 47

Upper Extremity Neuropathies Following Median Sternotomy. J.E. Morin, R. Long, M.G. Elleker and others. Ann. Thorac. Surg., 1982, 34:181-185.

THE INCIDENCE OF NEUROPATHY of the upper extremity after median sternotomy was documented in 955 consecutive patients. Fifty-four patients, 6 per cent, had neuropathy develop after operation. Ninety-three per cent of these patients were males. Thirty-eight patients from this group underwent a neurologic evaluation which included measurement of peripheral sensory nerve action potential, motor nerve conduction, somatosensory evoked response and F-wave and electromyographic investigation.

An ulnar neuropathy localized to the elbow was found in 13 patients. Injury to the lower trunk of the brachial plexus was found in ten patients. Six patients had injuries at both levels, and in the remaining six patients, the test results were either inconclusive or normal. There was no relationship between the side of injury and the position of the arm of the patient during operation. Neither the location of the radial artery cannula or the site for internal jugular cannulation was related to the side of the neuropathy. During a three month follow-up study, 92 percent of the patients had complete resolution of symptoms.

Neuropathy of the upper extremity occurs infrequently after median sternotomy. Nerve injury occurs most often at either the elbow or the thoracic outlet. Aggressive treatment is unnecessary, and most symptoms resolve without specific therapy.

Giacomo A. DeL aria Carcinoma of the Lung; Evaluation of Histological Grade and Factors Influencing Prognosis. C.K. Chung, Richard Zaino, John A. Stryker and others. Ann. Thorac.Surg., 1982, 33:599-604.

THE RESULTS of 96 patients with carcinoma of the lung who underwent lobectomy or pneumonectomy are analyzed. The authors believe that these results affirm earlier observations that histologic grade is well correlated with metastasis to the lymph nodes and with prognosis. Patients with grade 3 tumor had a higher incidence of metastasis to the lymph nodes, a higher incidence of tumor recurrence and a lower two year survival rate than those patients whose lesions were grade 1 or 2.

R. Thomas McLaughlin

Endoscopic Management of Lung Cancer with Hematoporphyrin Derivative Phototherapy. Denis A. Cortese and James H. Kinsey. Mayo Clin. Proc., 1982, 57;543-547.

THE POTENTIAL USE of hematoporphyrin derivative in the phototherapy of bronchogenic carcinoma is demonstrated. The authors report from the Mayo Clinic upon the treatment of ten patients with carcinoma involving the tracheobronchial tree who completed one course of this new treatment administered by the flexible fiberoptic bronchoscope. Four patients with superficial carcinoma of the lung showed a complicated response, five with larger instances of carcinoma showed a partial response, and two patients with a large instance of carcinoma extending beyond the bronchial wall died within 11 days of treatment.

The therapy is based upon the preferential concentration by malignant tissue of hematoporphyrin derivative and can produce selected photosensitization of malignant cells upon exposure to exciting light of appropriate wavelength. This results in cytotoxicity of these cells. Cytotoxic agents are generated by the transfer of energy of an excited porphyrin to oxygen.

All of the patients were evaluated by a team of physicians, and all either had undergone pulmonary resection previously or were considered inoperable for medical or technical reasons. They all either had

been rejected or had failed to respond to conventional radiation therapy and chemotherapy. Similar treatment protocols are being carried out at the Tokyo Medical College, the University of Southern California and Roswell Park Memorial Institute.

W. Clayton Davis

Carcinoma of the Lung; What Can Be Done if the Carina is Involved? Hermes C. Grillo. *Am. J. Surg.*, 1982, 143: 694-696;

THIRTY-FIVE PATIENTS with carcinoma of the lung were treated by resection of the carina, with primary reconstruction of the bronchial tree being performed in 30 patients and staged reconstructions being performed in five patients. The resected lesions of 14 patients were tracheal in origin, and those of 13 were bronchial or bronchogenic. Five patients had adenoid cystic carcinoma, two had carcinoid tumors of the bronchus, and one patient had mucoepidermoid carcinoma. Various procedures were performed, depending upon the location and extent of the primary tumor. All but two procedures were performed through the right hemithorax.

Surgical complications included granulation tissue at the anastomosis in one patient, postoperative stenosis in one patient and injury to the left recurrent laryngeal nerve in one patient. Four of five patients with bronchogenic carcinoma are alive nine to 24 months after operation; one patient died 25 months after resection. One patient with adenoid cystic carcinoma died of distant metastases 24 months after resection. The two patients with carcinoid tumor and the one patient with mucoepidermoid tumor are alive without disease at four to eight years after resection. Bronchial tumors which invade the carina—adenoid cystic carcinoma, carcinoid tumors and mucoepidermoid tumors—merit resection. Resection in an otherwise potentially curable patient with bronchogenic carcinoma involving the carina deserves continued aggressive exploration.

Judith S; de Nuno

Urgent Myocardial Revascularization for Dissection of the Left Main Coronary Artery; a Complication of Coronary Angiography. John P. Connors, Samer Thanavaro, Richard C. Shaw and others. *J. Thorac. Cardiovasc. Surg.*, 1982, 84: 349-352.

ACUTE dissection of the coronary artery is a rare complication of angiographic procedures. It occurs more often in the right coronary artery and is usually managed conservatively. The course of acute dissection of the left main coronary artery is quite different, and the experience of the authors with managing three instances of this complication is presented. All dissections occurred in the cardiac catheterization lab and were documented by the extravasation of contrast material. All patients experienced an acute onset of chest pain and widening of the QRS complex on electrocardiogram. Two patients became hypotensive, and one of these required intra-aortic balloon pump support. All patients were operated upon urgently, and survival was complete.

Iatrogenic dissection of the left main coronary artery is a rare complication. When it occurs, the patients should be stabilized and prepared for urgent revascularization.

Giacomo A. DeL aria

Surgery for Evolving Myocardial Infarction Steven J. Phillips, Robert Fl. Zeff, Chamnahn Kongtaworn and others. *J.A.M.A.*, 1982, 248:1325-1328.

ACUTE myocardial ischemia progresses to infarction as an evolutionary process over hours or even days. During six year period, 156 patients, who were predominantly male and averaged 51 years of age, underwent emergency revascularization of the coronary artery for evolving myocardial infarction. The average time from the onset of chest pain to complete revascularization was 6 hours, with a range

from 1 to 30 hours. Thrombectomy was performed successfully upon 79 per cent of the patients; an average of 3.4 grafts per patient were done.

Six patients, 3.8 per cent, died in the hospital, and two patients, 1.3 per cent, died later; all eight of these patients were in a subgroup of 26 patients who were hypotensive before operation and required drug therapy with or without intra-aortic balloon pump support for hemodynamic stability. Despite the higher mortality, 18 per cent, of this sub-group of 26 patients who were essentially in cardiogenic shock, the mortality was thought to be below that of other similar groups treated by conventional measures, including intra-aortic balloon support.

Frank J. Miloy

Management of Ascending Aortic Aneurysm Complicating Coarctation of the Aorta.

Ramanthran Sampath, William N. O'Connor, Jacqueline A. Noonan and Edward P. Todd. Ann. Thorac.Surg., 1982, 34:125-131.

IN THIS ARTICLE, an experience with four patients who had both coarctation of the aorta and aneurysm of the ascending aorta is described. The patients ranged from 12 to 37 years old. One patient died, and three patients were treated surgically. Hypertension was initially controlled pharmacologically, and the coarctation was then corrected. After operation, all of the patients required nitroprusside. The aneurysm of the ascending aorta was repaired as a second stage one to five weeks after repair of the coarctation. Cardiopulmonary bypass with coronary perfusion was used upon all three patients, and all three survived. All three patients had bicuspid aortic valves, and the oldest patient had stenosis requiring aortic valve replacement as well as coronary reimplantation.

The physiologic rationale for this approach is outlined in the article. In addition to reducing afterload and minimizing the danger of further dissection, by repairing the coarctation first, perfusion is improved during the repair of the aneurysm.

Bariy F Sachs