

Selected Abstracts

Pages with reference to book, From 225 To 227

Fracture of the Neck of the Femur in Childhood. W. R. Quinlan, P.G. Brady and B.F. Regan. Injury, 1980, 11:242.

Eleven patients with fracture of the neck of the femur under fourteen years of age are reported. Complications were common with one nonunion, three avascular necrosis and two premature epiphyseal closures, although no instances of coxa vara were seen. The distribution of the levels of fracture were similar to those reported upon in other series, with seven occurring in the transcervical region. Internal fixation was credited for the prevention of nonunion and the absence of coxa vera. The authors advocated reduction and internal fixation as well as early aspiration of the intra-articular hematoma which would help to prevent avascular necrosis.

-Robert E. Eilert.

Malignancy, Aggressiveness, and Recurrence in Giant Cell Tumor of Bone. N.G. Sanerkin. Cancer, 1980, 46: 1641.

Eighty-six giant cell tumors were analyzed in relationship to malignant growth, aggressiveness and recurrence. The author, who uses his objective grading system, considered Jaffe and Lichtenstein's grading subject to personal bias. Eighty-six per cent of the conventional giant cell tumors were graded as 1 and 2, 9 per cent showing frank sarcomatous changes with abnormal mitosis and vascular permeation were grade 2 and considered as borderline instances. Grade 3, 5 per cent, showed frank sarcomatous changes. Recurrence reflected the inadequacy of treatment with metastases observed only in the malignant group. One-quarter of the conventional giant cell tumors were considered aggressive on clinical and roentgenographic grounds, but not histologically. Tumors with minimal mitotic activity were considered nonaggressive. Five per cent had sarcomas develop after radiation. Excellent photomicrographs demonstrate the tumor cells within the venules of the cortical shell as clear-cut evidence of vascular permeation. Mitotic counts offering rough guidelines are overlapping in the 3 groups. Normal mitosis, vascular migration and a high mitosis rate did not provide proof of frank malignant growth in giant cell tumors. Unequivocal diagnosis of malignant disease is possible in only those instances showing frank sarcomatous changes. The occurrence of postradiant sarcoma will decrease in the future after radiotherapy has been abandoned. Recurrence reflects inadequacy of treatment.

-Ernest H. Bettmann.

Coarctation of the Thoracic Aorta; an 18-Year Experience. George F. Kish, Vasken K. Tenekjian, Thomas J. Tarnay and others. Am. Surg., 1981, 47:26.

Between August 1960 and December 1978; 80 patients with congenital coarctation of the thoracic aorta were studied. The patients ranged in age from two weeks to 49 years, with 12 patients less than three months old. All of the infants presented with congestive failure of the heart and multiple cardiac defects. In the patients who were older, hypertension was the most common presenting symptom. Fourteen patients were asymptomatic.

All patients less than three months old received primary correction. Seven, 58 per cent died of complications associated with other cardiac anomalies. In the group of older patients, there were 59 primary reconstructions; six interposition grafts and three other procedures. Two patients died in this group. There were three re-explorations, two for bleeding and one for a false aneurysm at the suture line. Seven patients exhibited paradoxical hypertension, three had abdominal symptoms develop and two required laparotomy. Three patients who were operated upon during infancy had recurrent coarctation

develop with re-operation necessary for two of the patients. Nine of the patients had chronic hypertension, all of whom were operated upon after they were 15 years old.

Surgical correction of coarctation in infants has a high mortality secondary to associated defects. The operative mortality in patients who are older is minimal and correction should be undertaken early to prevent the long standing complications of hypertension.

-Edward A. Dainko.

Anesthesia for Pediatric Day-Surgery. Susan E. F. Jones and B. A. C. Smith. J. Pediatr. Surg., 1980, 15: 31.

OUTPATIENT Surgical treatment has been widely accepted by surgeons, especially for use in children. One thousand, two hundred and seventy-eight general surgical patients were studied at a hospital between 1974 and 1978. Selection occurred in the outpatient clinic by surgeons. One hundred and four children were subsequently admitted overnight for surgical reasons in 48 patients, for medical reasons in three patients, social reasons for 38 and for anesthetic reasons in 15 patients. The operations performed were umbilical herniorrhaphy, inguinal herniorrhaphy, superficial skin lesions, meatotomy, procedures involving the anus and rectum and cystoscopy, including urologic procedures.

Postoperative care included intramuscular papaveretum and moderate pain was usually relieved by oral paracetamol. Patients were mobilized quickly and encouraged to drink clear liquids. When suitable transport was available discharge occurred when the children were well enough to leave. Anesthetic reasons for overnight admission included excessive vomiting in 11 patients and other anesthetic problems such as sudden apnoeic attacks, laryngeal spasm and low cardiac output in four patients. It would appear, therefore, that anesthesia for outpatient surgical treatment can be comparatively safe, although slight adjustments to normal procedures may be required.

Some of the younger children might have benefitted from preoperative sedation. General anesthesia most frequently included induction intravenously. When necessary, children were intubated. There were no respiratory problems. The use of local anesthetic agents represented part of the total anesthetic technique. Intubation and outpatient surgical treatment, even in infants, are not mutually exclusive.

-Rudolph W. Roesel.

Radiologic Diagnosis of Oat Cell Cancer in a High-Risk Screened Population. Roort T. Heelan, Myron R. Melamed, Mohammad B. Zaman and others. Radiology, 1980, 136:593.

A screening program was undertaken to attempt to achieve earlier diagnosis of oat cell carcinoma of the lung. Ten thousand and forty men who were cigarette smokers over 45 years of age were evaluated with yearly posteroanterior and lateral high kilovoks peak technique roentgenographs. One-half of these men also had sputum cytologic examination at four month intervals.

Of 155 men found to have carcinoma of the lung, 27 had oat cell carcinoma, 1 - per cent. One patient was diagnosed at the first examination, prevalence cancer, and 26 were diagnosed by subsequent exams, incidence cancer. Of the 26 patients, eight were diagnosed on routine yearly roentgenographs, seven were diagnosed on interval films obtained because of new symptoms and one was diagnosed on cytologic examination. In 24 of 26 patients, the tumor was Stage III when detected and, of these patients, only one is alive at 21 month follow-up examination. The two patients diagnosed as Stage I were alive without evidence of disease at seven and 24 month follow-up examination. The screening program used in this study did not succeed in detecting oak cell carcinoma at an early stage.

-Jane W. Barry.

X-Ray Pelvimetry in Clinical Obstetrics. Michael W. Varner, Dwight P. Cruikshank and Douglas W. Laube. Obstet. Gynecol., 1980, 56: 296.

One hundred and one consecutive x-ray pelvimetries were examined. These were obtained by the Brown's modification of the Colcher-Sussman technique and demonstrated that the anteroposterior

measurements were of no value in predicting the eventual method of delivery. X-Ray pelvimetry is usually indicated when there is a secondary arrest of labor with breech presentation, for the induction of labor and for a clinically small pelvis or unknown presentation.

In 94 of the patients examined, no new information was obtained by x-ray pelvimetry. In the other seven patients, information obtained was equally accessible by either ultra-sonography or abdominal scout film. Exposure to the fetus through pelvimetry is approximately 1.1 rads, but repeating films may increase this total to as much as 4 rads. Other results have shown an increased incidence of childhood malignant conditions in those children exposed to radiation in utero. In this study, the management of the patients was not altered by roentgenographically determined measurements of pelvic architecture. The technique is determined by the authors as having limited usefulness in clinical obstetrics.

- **William J. Peeples.**

Intracranial Tuberculomas; a CT Study. S. Bhargava and P. N. Tandon. Br. J. Radiol., 1980,53:935.

The authors describe the appearance of 25 patients with tuberculomas as portrayed on cranial computed tomography. Early in the formation of a tuberculoma, the computed tomography appearance was a small disc with surrounding edema. The more mature forms appeared as large rings or lobulated masses. The images of the more mature forms were considered consistent with repetitive formation of tuberculomas. Surgical excision is recommended of larger tuberculomas, whereas, smaller tuberculomas might be amenable to medical treatment. The success of medical therapy, could be followed with serial computed tomography scans. The presence of multiple masses was recorded in 55 per cent of the patients who were studied.

Arthur C. Fleischer.

Ultrasound in Elective Biliary Tract Surgery. Edwin A. Deitch and Juliette M. Eneel. Am. J. Surg., 1980, 140:277.

The background technique and ultrasonic criteria used in the diagnosis of disease of the biliary tract are reviewed. One hundred prospective patients who underwent oral cholecystography and elective ultrasound of the biliary tract. In 96 of 100 patients, the ultrasound examination was technically adequate. In 90 per cent of the patients, the two examinations agreed. Of the eight patients in whom results of ultrasound and oral cholecystography disagreed, seven had normal findings on ultrasound with a nonvisualizing oral cholecystogram and one had a normal oral cholecystogram with abnormal findings on ultrasound. Fifty-three patients had surgical treatment. Of these, oral cholecystography had an over-all accuracy of 96 per cent.

It was concluded that grey scale ultrasound of the biliary tract is a highly accurate, cost effective, noninvasive examination that can be performed in any patient population without risk of radiation exposure or contrast allergy. The authors now use ultrasound as the primary screening examination in patients with suspected disease of the biliary tract.

-**Sidney Ulretch.**

Heart Rate and Heart Rate Variability During Sleep in Aborted Sudden Infant Death Syndrome. Hedi L. Leistner, Gabriel G. Haddad, Ralph A. Epstein and others. J. Pediatr., 1980, 97:51.

In this article, the heart rate and heart rate variability were studied during rapid eye movement and quiet sleep in a group of normal infants and in twelve infants who had experienced one or more aborted sudden infant death syndrome. Infants with aborted sudden death infant syndrome have a faster heart rate and decreased over-all beat-to-beat variability when compared with normal infants matched for age. This is present in both rapid eye movement and quiet sleep. The faster heart rate may be due to increased sympathetic activity, a decrease in parasympathetic activity or increased circulating levels of catecholamines. The results of previous studies have shown a shorter Q-T interval and faster heart rate

in these children. The increased sympathetic activity may serve to mask the normal heart rate fluctuations seen in normal children. The reason for the increased sympathetic activity is unknown, but the finding of a persistent physiologic abnormality in the aborted sudden death infant syndrome group may lead to an understanding of the causative physiologic characteristics in those who die of sudden death infant syndrome.

-Basry F. Sachs.