

Selected Abstracts

Pages with reference to book, From 282 To 285

The Efficacy of Type and Screen to Reduce Unnecessary Cross Matches for Obstetric Patients. Paul M. Ness, Mary Ellen Rosche, Christine Barrasso and others. Am. J. Obstet. Gynecol., 1981, 140: 661-664.

IN THIS REPORT from Johns Hopkins Hospital, the cost effectiveness of the blood type and screening procedures for reducing the crossmatchblood transfusion ratio in obstetric patients without sacrificing the quality of patient care was demonstrated. The typing and screening procedure is discussed. One thousand and seventeen obstetric patients were screened in two phases. In phase I, patients with no complications were used for screening. Sixty-five per cent of the patients were actually screened, and the cross-match-transfusion ratio was 17.6:1.0. In phase 2, 89 per cent of all patients were screened with crossmatches initially done on those who were bleeding. The crossmatch-transfusion ratio was decreased to 4.9:1.0. With this screening procedure, unnecessary crossmatches are avoided, all obstetric patients can be used without compromising their care, for no unmatched transfusions were given in the study group, and the cost savings to patients and hospitals can be significant.

-David W. Cromer

Tinidazole in the Prophylaxis of Post-Appendectomy Infections. J.Salo, E. Silvennoinen, A. Hulkko and others. Ann. Chir. GynaecoL, 1981, 70: 187-190.

A DOUBLE BLIND TRIAL was undertaken in which a consecutive series of patients with suspected appendicitis was assigned randomly to two groups. The first group was given 500 mgm. of tinidazole, and other group was given 100 ml. of physiologic saline solution. In the subsequent followup period, postoperative wound infections were diagnosed in only three patients who were treated with the tinidazole, whereas 17 patients in the control group had a noticeable infection develop. There were no side-effects due to the drugs, and it was considered that the tinidazole had been highly effective in reducing the incidence of postoperative wound infection. It would appear that its action is principally against anaerobic bacteria or bacteroides species.

-Robert Ti. Holl-Allen

The Use of a Selected Ion Monitoring Technique to Study the Disposition of Bupivacaine in Mother Fetus, and Neonate Following Epidural Anesthesia for Cesarean Section. P.M. Kuhnert, BR. Kuhnert, J.M. Stitts and T.L. Gross. Anesthesiology, 1981, 55: 611.

A NEW METHOD for detecting small amounts of bupivacaine and its inactive metabolite 2.6-pipecolyixylidine in the blood and urine of mothers and fetuses is presented. Gas chromatography-mass spectrometry techniques were used to measure sample concentrations of less than 4 ngm./ml. Although actual fetal and neonatal halflives of the drug and its metabolite were not computed, the data suggest that the half-life in the fetus is long and that tissue binding of bupivacaine is more extensive than has been thought in the past, since 2.6-pipecolyixylidine can be detected in the blood and urine of neonates for up to 72 hours after birth. The data also suggest that the fetus metabolizes bupivacaine to 2.6-pipecolyixylidine less than adults do; however, the fetus, like the adult, is able to excrete unchanged bupivacaine in the urine. The results of this study are a reminder that umbilical vessel concentrations and maternal-fetal blood ratios of drugs may not accurately reflect the amount of any drug that is transferred to the placenta and that is stored in the fetus.

-Susan K.Palmer

The "String Sign" on Computerized Tomography. Michael J. Schnur and Shelley Nan Weiner.

Gastrointest. Radiol., 1982, 7: 43-46.

THE STRING SIGN, described on contrast studies of the small intestine, to incomplete filling of the lumen of the distal part of the intestine either from extreme spasm and irritability, as in Crohn's disease, or secondary to a disease process which causes thickening of the small intestinal wall or mesentery. Three patients with the string sign demonstrated on computerized tomographic scans are reported upon: one patient with Crohn's disease, one patient with metastases to the distal part of the small intestine from primary adenocarcinoma of the colon and one patient with intestinal lymphoma. On the computerized tomographic scans of these patients, appearances of the string sign represented narrowing of the intestinal lumen by thickening of the intestinal wall or by mesentery. In the differential diagnosis of such lesions on computerized tomography, other disease processes causing narrowing of the small intestine and thickening of the intestinal wall or mesentery, such as ischemia, primary carcinoma of the small intestine, tuberculosis, carcinoid tumor and radiation therapy, also should be considered.

To determine whether or not the string sign could be simulated by intestinal peristalsis or incomplete filling of the intestine, the computerized tomographic scans of the abdomens of 25 consecutive patients were reviewed retrospectively. In none of these did a similar finding occur.

Contrast roentgenography continues to be the primary diagnostic method for investigating the gastrointestinal tract. With the increasing use of computerized tomography for the primary evaluation of abdominal disease, however, the recognition of abnormal computerized tomographic patterns of the intestine, such as the string sign, becomes increasingly important.

-Marco A. Amendola

Cholecystitis; Prospective Evaluation of Sonography and Tc-HIDA Cholescintigraphy. Nancy J. Worthen, J. Michael Uszler and Jack L. Funamura. Am. J. Roentgenol., 1981, 137: 973-978.

A SERIES of 113 patients, 56 of whom had gallbladder disease and 57 of whom were clinically normal, are reported upon. Ultrasound had a sensitivity of 100 per cent and a specificity of 98 per cent in detecting gallbladder disease, whereas hipuran imino diacetic acid scans had a sensitivity of 80 per cent and a specificity of 100 per cent. It was concluded that ultrasound of the gallbladder is the procedure of choice in screening patients for cholecystitis.

In addition to the presence of gallstones, the ultrasonic criteria of wall thickness, increased diameter of the gallbladder and a round versus a normally oval shape of the gallbladder were used as criteria to assist the authors in defining the sonographically abnormal gallbladder. This is a well thought out article in which a lot of very useful data on the evaluation of gallbladder disease are brought together.

-Samuel J. Hessel

Lung Disease in Homosexual Men. David M. Epstein, Warren B. Gefter, Katr conrad and others. Radiology, 1982, 143:7-10.

TWO PATIENTS are reported upon demonstrating the roentgenographic appearance of Kaposi's sarcoma and Pneumocystis carinii pneumonia in homosexual men. The recent association of these two diseases among homosexual men may be related to cytomegaloviral infections which are rampant in the male homosexual population. The infiltrates may be the result of either pneumo. cystis or Kaposi's sarcoma. The type of Kaposi's sarcoma that these patients get is generally more virulent than usual, with generalized lymphadenopathy and involvement of the primary viscera. Fifty per cent of the patients died within 20 months of diagnosis. The radiologist and clinician should be aware of this association in young homosexual men who present with infiltrates of the lung.

-Christopher Kagan

Computed Tomographic Evaluation of Blunt Renal Injuries. Carl M. Sandier and Barry D. Toombs. Radiology, 1981, 141: 461-466.

INJURY to the kidney after blunt trauma is usually evaluated by excretory urographic or angiographic examination, or both. In a series of ten patients, computed tomography was shown to be more specific than intravenous pyelography in clarifying abnormal findings, and in one patient, it demonstrated a laceration of the kidney not shown by conventional studies. Other demonstrated abnormalities were capsularperinephric and intrarenal hematomas, segmental infarct and contrast extravasation. Computed tomography is recommended as a supplemental noninvasive method for defining the specific nature of urographic abnormalities and as a means of avoiding angiography in certain patients.

-M.M. McDaniel

Localization of Functional Adrenal Tumors by Computed Tomography and Venous Sampling.

N.Reed Dunnick, John L. Doppman, John R. Gifi, Jr., and others. Radiology, 1982, 142: 429-434.

TWENTY-EIGHT PATIENTS with biochemically confirmed primary aldosteronism, 20 patients with confirmed Cushing's syndrome and ten patients with pheochromocytoma were studied with computed tomographic scanning and adrenal venous sampling. Computed tomographic scanning identified adrenal tumors in 11 of 18 patients with aldosteronoma, six of six patients with benign cortisol producing adrenal tumors and five of six patients with pheochromocytomas. No false-positive diagnoses were encountered among patients with adrenal adenomas. Adrenal cortical hyperplasia was diagnosed when both adrenals appeared prominent or when the adrenals appeared normal. Adrenal venous sampling was correct in each patient and reliably distinguished adrenal tumors from hyperplasia. Five of six patients with pheochromocytoma were diagnosed by computed tomographic scan. Arteriography correctly diagnosed all six. Recurrent pheochromocytoma was difficult to distinguish from postsurgical changes.

-Mark L. Born.

Adriamycin Combinations in Advanced Breast Cancer; a Southwest Oncology Group Study. B.L. Tranum, B. McDonald, T. Thigpen and others. Cancer, 1982, 49: 835-839.

ADRIAMYCIN, doxorubicin hydrochloride, as a single agent has been associated with response rates of carcinoma of the breast in the range of 30 to 40 per cent. Results of combinations of drugs that included Adriamycin have been reported to be superior to Adriamycin alone. This study was designed to compare the efficacy of three regimens: that of Adriamycin plus cyclophosphamide and that of 5-fluorouracil, Adriamycin and cyclophosphamide and that of Adriamycin followed by cyclophosphamide, vincristine, 5-fluorouracil and prednisone.

The complete response rate plus the partial response rate was 44, 48 and 46 per cent, respectively, for each treatment regimen. The median length of response was 29, 52 and 37 weeks, respectively, for each treatment regimen. Toxicity was similar with all three regimens. It is concluded that additional clinical trials using similar combinations of drugs hold little promise for improvement, and it is suggested that the use of hormone receptor testing to select a treatment and more intensive adjunctive regimens appear to promise the most for further advances in the treatment of patients with carcinoma of the breast.

-Gordon L. Kauffman, Jr.

Initial Chemoimmunotherapy in Inflammatory Carcinoma of the Breast. B. Zylberberg, J. Salat-Baroux, J. H. Ravina and others. Cancer, 1982, 49: 1537-1543.

THE SUCCESS of preoperative chemoimmunotherapy for inflammatory carcinoma of the breast is discussed. Fifteen patients are presented with reference to two others with existing metastases at the time of the first observation. The 15 patients were first seen during a period from 1975 to 1977 and are currently disease-free 45 to 77 months later. The ages of the patients ranged from 29 to 65 years with an average of 53 years.

In addition to the usual diagnostic methods plate thermography was used. There was a gradient of more than 2.5 degrees C. when compared with the other breast. Needle biopsy or incisional biopsy was

undertaken to prove the diagnosis.

Treatment was initiated with the administration of Adriamycin, doxorubicin hydrochloride, on day one, vincristine on day two, cyclophosphamide and 5-fluorouracil on days three and four and melphalan from days three to nine. The cycles were repeated every 28 days. Bacille Calmette Guerin vaccine was administered on days ten through 18 and on day 26. Thermography, carcinoembryonic antigen and immunity testing were repeated monthly two days before each cycle of chemotherapy was to begin. The date of operation was determined solely on the basis of thermographic criteria. It was scheduled as soon as a thermic gradient no longer existed in comparison with the other breast. The operation was simple mastectomy with dissection of the axilla. When tumor remained after operation, 4,500 rads were given to the chest wall, axilla and supraclavicular area with an additional boost of 2,000 rads to the area of incomplete removal. In the event a radical surgical procedure or radiation was refused, generous removal of the tumor was the surgical procedure used.

Chemoimmunotherapy was resumed 15 days after the operation up to a total of ten courses. Later maintenance therapy consisted of cyclophosphamide, melphalan, 5-fluorouracil, methotrexate and bacille Calmette Guerin vaccine. Premenopausal patients received the maintenance regimen for one year, and postmenopausal patients received it for one and one-half years. All of the patients continued the immunotherapy itself for a total of three years.

Initial treatment resulted in regression of the tumor in three patients and partial reduction in size in the other 11. In eight, adenopathy disappeared. Seven patients achieved thermographic resolution after one cycle of chemoimmunotherapy. After two cycles, an additional five had resolution, one patient had resolution after the third cycle, and the remaining patient had resolution after the fourth cycle. For one patient, complete excision of the tumor was impossible. Two patients refused radical operation and underwent simple but generous excision of the tumor. Abnormal lymph glands were noted in six patients.

Three patients died, one at 24 months with incomplete excision of the tumor and inadequate chemotherapy because of leukopenia. The other two died because of metastases to the lung and bone at 27 and 37 months. Ten were disease free from 44 to 77 months later; one of the patients had generous local excision only. Two other patients are alive with residual disease, both having undergone local excision of the tumor only.

-Thomas J. Tamay.

Skeletal Muscle Biopsy; Indications and Results in 200 Patients. Victor J. Ojeda, Philip J. Jacobsen, Dominic V. Spagnolo and Keith Cole. Med. J. Aust., 1982, 1: 127.

THE EFFECTIVENESS of this rather costly investigation, biopsy of skeletal muscle, is assessed. Two hundred patients were collected from two teaching hospitals in Australia between 1975 and 1979. The patients ranged from eight to 85 years with an equal distribution of males and females. Many of the females underwent muscle biopsy in a program to detect carriers of muscular dystrophy.

The most common indications for muscle biopsy were muscle weakness and peripheral neuropathy. Abnormal muscle was found in 63.0 per cent of the patients, and normal muscle was found in 27.5 per cent. It is concluded that, although a normal result does not exclude myopathy, a sufficient number of results were abnormal to justify this investigation, which involves light, electron microscopy and snap-frozen sections for histochemistry.

-J.P Moreau