

**Joint Effusions and Flexion Deformities—J. C. Favreau and C. A. Laurin**

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The etiology of flexion deformities has been studied experimentally on infant and adult cadavers. The experiment was performed on all major joints. These were filled with liquid under tension and then connected to a manometer. The influence of joint position on the intra-articular pressure was carefully noted. The position of least pressure was always a position of slight flexion. It was concluded, therefore, that the etiology of flexion deformities in the presence of an effusion is due to a maintenance of the position of comfort since it is at that position that the para-articular structures are under least pressure. For example, the position of least pressure in the wrist joint was a position of slight flexion and ulnar deviation; in the hip joint, the position of least pressure was one of flexion, adduction, and slight external rotation. These positions of least pressure obviously correspond to the common joint deformities at those particular levels.

**Fetal Loss After Cholecystectomy During Pregnancy—**

J. Greene, A. Rogers, and L. Rubin

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The histories of 17 patients who had cholecystectomy during pregnancy were reviewed. All patients were operated on for clinical recurrent biliary colic. Four patients aborted or had premature labor. It appears that cholecystectomy performed during pregnancy increases the risk of fetal loss. Because of this, it would appear reasonable to perform the operation only if the exigencies of the situation demand it. There may also be an increased fetal loss from recurrent biliary colic treated symptomatically, particularly if cholecystitis and jaundice complicate matters further. If operation is performed, the fetal loss rate will probably be in the neighborhood of 15%.

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**Cytological Presentation of Malignant Lymphomas and Related Diseases in Effusions—M. R. Melamed**

*Cancer* 16:413 (April) 1963

By examining the cellular sediment of pleural and ascitic effusions, prepared by standard cytological techniques and stained by the Papanicolaou method, it is often possible to confirm directly the presence of lymphomatous infiltrate within a body cavity. In order to define in detail the cytological criteria for diagnosis, 389 specimens from 200 patients collected over a 7-yr-period were reviewed. The patterns of cell abnormalities found were described and illustrated. In some cases they were so distinctive as to be virtually specific. Positive identification of malignant cells was possible in 55% of the patients; in an additional 14% the cells were considered suspicious. Malignant cells were most likely to be found in effusions of patients with reticulum cell sarcoma, and least likely in those with Hodgkin's disease.

**Extraskelatal Osteogenic Sarcomas and Chondrosarcomas in Children—S. L. Kauffman and A. P. Stout**

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These malignant tumors of the soft tissues are rare at any age but excessively rare in children. Of the chondrosarcomas, only one case in a child less than 16 yr of age

had been previously reported by one of the present authors. Including this case 7 examples are presented, 4 in girls and 3 in boys, whose ages varied from 1½ to 14 yr. Six tumors were in the external soft tissues and one was attached to the bladder. Of the 3 who died, 2 had metastases and 1 was last seen with inoperable tumor. Only 4 osteogenic sarcomas of the soft tissues in children could be found; 3 of these had been previously reported. Two were in the thigh, one in the orbit, and one in the pleura. The ages varied from 9 to 14 yr. Two children died with metastases, 1 died of local extension and 1 patient with sarcoma of the thigh was alive and well after 20 yr. Apparently these extraskelatal tumors are just as malignant in children as are the skeletal.

**Comparison of 2,17-Dimethyl Testosterone and Fluoxymesterone in Metastatic Breast Cancer—R. W. Talley, M. J. Brennan, V. K. Vaitkevicius, and V. L. Beckett**

*Cancer* 16:440 (April) 1963

The effects of 2,17-dimethyl testosterone were compared with those of fluoxymesterone in patients with metastatic breast cancer. Three of 26 patients receiving 2,17-dimethyl testosterone, 25 mg twice daily, and 5 of 25 patients receiving fluoxymesterone, 10 mg twice daily, experienced objective remission. The difference between the 2 drugs is not significant. However, of considerable interest was the larger number of patients remaining in a status of nonprogression for a longer period of time treated with fluoxymesterone as compared to the 2,17-dimethyl testosterone group. The mean duration of therapy was 65.2 days for 2,17-dimethyl testosterone and 120.7 days for the fluoxymesterone group. In a study of drug efficacy in breast cancer patients randomly selected and rigidly controlled, nonprogression may be an important index of therapy.

**Technique for Visualization and Perfusion of Bronchial Arteries for Lung Cancer—E. E. Clifton and D. R. Mahajan**

*Cancer* 16:444 (April) 1963

A simple technique, developed for visualization and perfusion of the bronchial arteries in the chemotherapy of unresectable lung carcinoma, is described. A temporary intraluminal occlusion of the thoracic aorta is produced with a double balloon catheter inserted through a femoral arteriotomy (under local anesthesia). Palliation of severe symptoms including cough, pain, hemoptysis, and dyspnea was observed in the majority of the patients treated. No serious complications were observed. This technique may be applied for direct infusion of antibiotic and antibacterial agents in severe intractable infections. Bronchial arteriography may be a useful diagnostic tool in chest diseases.

**Growth and Metastasis of Tumor In Organ Culture—J. Folkman, D. M. Long, and F. F. Becker**

*Cancer* 16:453 (April) 1963

Isolated canine thyroid glands were perfused with hemoglobin-serum solutions for periods up to one week. Heterologous malignant tumors implanted into these glands grew rapidly in their original solid state; they liberated cells into the circulation, and produced new metastases which were observed by transillumination of the gland. The isolated thyroid gland perfused with a noncellular fluid was unable to reject tumors from other species. Competition was observed between thyroid gland and melanoma implants for available tyrosine. This technique appears to be useful for the study of mechanisms of metastases and for investigations of solid tumors growing in vitro.