Selected Abstracts

Pages with reference to book, From 265 To 267

Does Cervix Conization Increase the Risk of Complications in Subsequent Pregnancies? Mahmud Moinian and Bjorn Andersch. Acta Obsted. Gynecol., Scand., 1982, 61: 101-103.
FORTY-FOUR PATIENTS who had been treated for carcinoma in situ of the uterine cervix by cone biopsy with a cold knife were studied. The outcome of their 923 pregnancies before and after cone biopsy was examined to analyze the risks of the procedure with regard to subsequent pregnancies. The incidence of late spontaneous abortion increased from 0.6 per cent before biopsy to 4.1 per cent after biopsy. After biopsy, 17 patients, 18.9 per cent, required cervical cerciage for suspected cervical incompetence. Six patients required cesarean section because of a rigid, scarred uterine cervix. Results of other studies do not demonstrate such a high increase in obstetric complications after cone biopsy. **Janice B. Asher.**

Deactivation of the Uterus During Normal and Premature Labor by the Calcium Antagonist Nicardipine. A.I. Casapo C.P. Puri S. Tarro and M. R. Henzl. Am.J. Obstel. Gynecol., 1982, 142: 483-491.
THE MYOMETRIAL action of the calcium antagonist nicardipine in eight New Zealand white rabbits and 140 Sprague-Dawley rats was examined. For in vitro studies, 32 longitudinal uterine muscle strips were excised from postpartum rabbits, mounted at optimum length in oxygenated Krebs solution at 37 degrees C., pH 7.4 and stimulated in a longitudinal electric field or with oxytocin until they had developed maximum tension in a steady state for several hours. Vehicle or nicardipine was then added to the Drebs solution to reach final concentration of 0.1, 1.0 and 10.0 ugm/ml. The suppression of excitability and tension was statistically significant 5 minutes after treatment with nicardipine concentrations of 1.0 and 10.0 /.Lgm/ml. and 10 minutes after treatment with 0.1 jigm/ml. When oxytocin was used instead of an electrical field, 1.0 jigm/ml. of nicardipine was sufficient to suspend completely excitability and tension in 5 to 10 minutes.
Various in situ studies of action of nicardipine were carried out upon late pregnant or early postpartum rats. Factors studied include: response of the uterus to nicardipine, response of the uterus to oxytocin and prostaglandin F2a under nicardipine suppression, arrest of labor by nicardipine, delay of experimentally induced premature labor by nicardipine and levels of progesterone and prostaglandin in oophorectomized rats treated with estradiol with and without nicardipine. Single doses of 100 and 500 ugm/ml. of nicardipine reversibly suspended the spon. taneous activity in 22 uteri of postpartum rats for 34 ± 6 and 94 ± 9 minutes, respectively. An intrauterine administration of prostaglandin F2a did not elevate intrauterine pressure in 18 postpartum rats that were injected with an average dose of 207 ± 28 jigm. of nicardipine.
In addition, nicardipine administered to 19 rats immediately after the spontaneous delivery of the first fetus arrested labor and delayed the delivery of subsequent fetuses relative to 20 rats used as controls. When oophorectomy was used on day 16 to induce premature labor, six oophorectomized rats that were receiving 5ugm/ day of estradiol dlivered 82 per cent of their fetuses within 48 hours, whereas seven rats that were treated by oophorectomy and receiving estradiol plus nicardipine delivered only 4 per cent of their fetuses within 48 hours. Rats that had oophorectomy showed a massive decrease in the levels of progesterone and a significant increase in prostaglandin F and prostaglandin FM levels in plasma and uterine tissue, regardless of whether or not nicardipine was administered.
Thus, nicardipine acted to prevent premature labor independently of changes in levels of progesterone and prostaglandin. The prevention of premature labor might, therefore, result from the natagonistic action of nicardipine to calcium.

Judith S. de Nuno.

A Surgical Approach to the Treatment of Fetal Hydrocephalus. William H. Clewell, Michael L. Johnson, Paul. R. Meier and others. N. Engi. J. Med,., 1982, 306: 1320-1325.
INTRAUTERINE HYDROCEPHALUS was diagnosed in a fetus at 21 weeks of gestation using ultrasonography. The hydrocephalus progressed, and at 24 weeks of gestation, a vetriculoamniotic cereobrospinal fluid shunt was inserted percutaneously. A sector real-time ultrasonographic scanner was used to guide the insertion of the shunt, to confirm the position of the shunt and to evaluate the function of the shunt.
No fetal or maternal complications occurred. The shunt became obstructed at 34 weeks of gestation, and the fetus was delivered by cesarean section. A standard vetriculoperitoneal shunt was inserted after the delivery. The authors document the feasibility of intrauterine treatment of fetal hydrocephalus by vetriculoamniotic shunt.
Leland Aibright.

Fetal Lung Maturation; Amniotic Fluid Catecholamines, Babaknia, Bill R. Hopper and other Am. J. Obstet. Gynecol, 1982, 142: 440-444.
CONCENTRATIONS of catecholaniines and their metabolites in amniotic fluid were compared with other indexes of fetal pulmonary maturation, such as lecithin-sphingomyelin rations, phosphatidyiglycerol percentages and cortisol levels. Amniotic fluid was collected by transabdominal amniocentesis from 62 women in the third trimester of pregnancy. All amniocenteses were done for clinical indications. At the time of amniocentesis, no patient was in labor and membranes were intact. Gestational age was determined from the last menstrual period, appearance of fetal heart tones, quickening, fundal height, results of ultrasonography and neurologic assessment at delivery. Twenty-six patients had no complications or fetal distress, while the other 36 patients had one or more of these conditions: diabetes mellitus, hypertension, retardation of intrauterine growth, premature labor, drug abuse, Rh isoimmunization and fetal distress during labor.
Significant correlations were found between phosphatidyiglycerol percentages and concentrations of cortisol,r=0.78, 3 .4-dthydroxyphenylglycerol, r=0.74, norepinephrine, r0.44, and epinephrine, r0.43. Highly significant elevations of these substances were noted with accelerated pulmonary maturation. In addition, lecithin-sphingomyelin ratios were significantly correlated with cortisol levels, r=0.50. These correlations were found in both normal and complicated pregnancies. Amniotic fluid catecholamine and catecholamine metabolite levels, however, showed a significant correlation with lecithin-sphingomyelin levels only in normal pregnancies.
A total of 38 patients delivered within 72 hours of under going amniocentesis. Four of the neonates were diagnosed as having respiratory distress syndrome. Phosphatidylglycerol percentages were the most efficient index of fetal pulmonary maturity in this group of neonates; lecithin-sphingomyelin levels and 3 ,4-dihydroxyphenyiglycerol levels were the next most efficient index of fetal pulmonary maturity. The data indicate that fetal adrenergic activity may be involved in the process of pulmonary maturity.
Judith S. de Nuno.

Cryptorchidism; Incidence of Chromosomal Anomalies in 50 Cases. Francis F. Bartone and Michael A. Schmidt. J. Urol, 1982. 127: 1105-1106.
THE INCIDENCE of chromosomal anomalies was investigated in 50 consecutive patients who were two to 25 years old and undergoing orchio. pexy for cryptorchidism. Thirty of the patients had unilateral cryptorchidism, and 20 had bilateral cryptorchidism. All patients underwent biopsy of the testis and had peripheral blood specimens taken. Of the 50 patients, 48 demonstrated 46XY normal male chromosome complements in testes and blood. One patient had Klinefleter’s syndrome, and one

had mosaic trisomy 8 with normal peripheral blood 46XY and testicular karyotype 46XY/XY ÷ 8. The incidence of chromosomal anomalies among the patients in this series was not statistically different from the frequency of chromosomal anomalies among those normal individuals in this age group.
Judith S. de Nuno.

Cytogenetic and Histological Studies in a Series of Subfertile Males. D. Curtis, A. Thomas, J. L. Williams and others. Int. J. Androl., 1982, 5: 113-129.

SIXTY-EIGHT MEN underwent biopsy of the testis for investigation of subfertiity, and the specimens were studied using both histologic and cytogenetic criteria. Selection criteria included sperm counts of less than 10Xl0 66 sperm/ml. or motility of less than 40 per cent after 2 hours.

Unilateral biopsy was performed with the patient under general anesthesia, and the specimen taken at biopsy was fixed in Bouin's solution for routine histologic examination. The findings were divided into categories of Sertoli's cells only, seminiferous tubule hyalinization, hypospermatogenesis and germinal cell arrest. Other samples, referred to as mixed, consisted of normal tubules together with abnormal tubules. A final quantitative biopsy score count was assigned for over-all value of activity in the epithelium. Active spermatogenesis earned a score of 10-8, while reduced spermatogenesis showed a score of 7-4.

One-half of the biopsy findings were processed for cytogenesis, and a meiotic preparation was obtained and stained with dye. Peripheral lymphocyte cultures were also obtained for karyotype and analysis, and gonadotrophin levels were studied.4

Abnormal tissue sections were identified in 23 of the 64 samples, 36 percent. Fifteen of these samples were morphologically abnormal in the majority of the tubules studied. The remaining eitht samples were similar, except that a proportion of tubules showed a more active type of epithelium.

Usjng meiotic chromosome analysis, 1.4 of 68 samples, 20.5 percent, had abnormal diakinesis with abnormal configurations of meiotic figures and associated abnormal somatic karyotypes. Abnormal somatic chromosome complements, which are found in association with abnormalities of meiotic chromosomes, act as an independent parameter for determining spermatogenic function. Analysis of cell stages during the spermatogenic cycle identified 12 patients with a missing cell cycle stage. A kinetic model of spermatogenesis can be used to relate different types of abnormality during spermatogenesis. Defects in this spermatogenic cycle will cause a reduction in the quality and quantity of sperm production in subfertile men.
Richard A. Blath.

Cytoreductive Surgery for Metastatic Testis in Cancer; Tissue Analysis of Retroperitoneal Masses Alter Chemotherapy. J.P. Donohus, L.M. Roth, J.M. Zachary and other J. Urol, 1982, 127: 1111-1114.

METASTATIC carcinoma of the testis is now widely treated by preoperative chemotherapy. This systemic cytoreductive.-therapy facilitates dissection of the retroperitoneal lymph node, but the nature or the residual tissue is unknown until it is examined under the microscope. The authors report upon 51 patients with advanced retroperitoneal disease who underwent nodal dissection. Nineteen patients had residual disease, often small and not located in the central largest mess.

It is concluded that inspection and biopsy are inadequate to rule out persistent disease and give the prognosis that management of the patient depends upon accurate analysis of the tissue. It is further concluded that up to 80 per cent of these patients survive given aggressive nodal dissection and chemotherapy and that it is better to operate after and not before chemotherapy. This is a valuable statistical and clinical study.
John R. Herman.