

In 150 patients (pts.) 3 mg (M) in 10 ml 0.9% saline, 50 pts. in 10 ml 5% glucose solution and 100 pts. 15 mg pentazocine (P) in 10 ml 0.9% saline were given in the epidural space. The efficacy in obstetric analgesia did not increase in either way in the first stage of labor. But in the second stage of labor, the addition of small amount of bupivacaine produced complete analgesia for more than 10 hrs. Several obstetrical indexes were unchanged. We determined the maternal and umbilical serum levels of (M) resulting from the epidural administration of (M) using RIA. The patient receiving 3 mg/60 kg had a peak serum level of 44.4 ng/ml, while 22.2 ng/ml in umbilical blood at 70 minutes postinjection. The earliest appearance of (M) is in 11 minutes and the latest in 960 minutes. No babies demonstrated respiratory depression. APGAR Score, values of blood gas and neurobehavioral scores (Scanlon) were all within normal limites.

"Pain Relief in Postsurgery"

In 260 patients 2-10 mg (M) in 10 ml 0.9% saline, 60 pts. in 5% glucose solution, 80 pts. in 10% glucose solution were given. In 20 pts. 0.1 mg fentanyl (F) and in 80 pts. 15 mg (P) in 0.9% saline were given. The efficacy of analgesia is 19 hrs. in (M) (2-4 mg), 28 hrs. in (M) (5-10 mg), 5 hrs. in (P) and 4 hrs. in (F). Decubitis of buttock was made in 2 cases of 80 pts. administered 10% glucose solution. The mean peak serum level in the pts. receiving 2 mg/50 kg was 36.6 ng/ml at 30-60 minutes postinjection and declined to 11.7 ng/ml at 270 minutes. The addition of droperidol to (M) prolonged analgesic time, but not epinephrine.

99. A Comparative Study on the Results of Macro- and Micro-Surgeries of Tuboplastic Operations: Patency and Pregnancy Rate, and Scanning Electromicroscopic (SEM) Findings

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Two hundred tuboplastic operations in our university hospital since 1974 to 1980 were as follows, a) macrosurgery 162 cases, b) microsurgery 38 cases, and 1) salpingostomy, 2) tubal-anastomosis, 3) salpingolysis.

Post-operative patency rate were examined by in-

sufflation test and hysterosalpingography (HSG); pregnancy rate were traced for 1 to 7 years consecutively.

Pre-operative HSG findings, histological images of occluded portion and post-operative pregnancy rate were studied.

We taxed our ingenuity to improve tubal anastomosis in animal experiments, using different types of threads, number of stiches, macro- and microsurgical methods. Portion of anastomosis were examined using SEM afterwards.

Post-operative patency rate and pregnancy rate after macrosurgery were as follows; salpingostomy 56.7%, 13.3%, tubal anastomosis 28.6%, 0%, salpingolysis 62.1%, 20.7%, and after microsurgery; salpingostomy 74.1%, 22.2%, tubal anastomosis 63.6%, 27.2% respectively.

From HSG findings: Twenty percent of post-operative pregnancy rate were obtained from small and localized hydrosalpinx cases but zero percent from large and expanded hydrosalpinx cases.

From SEM and histological findings: conditions of ciliated cells of end salpinx varied diversely depending on the past tubal disease, which, in turn, produced a powerful influence on the post-operative pregnancy rates.

100. End-to-End Anastomosis on the Use of a Fibrinogen-Thrombin-Adhesive-System during Fallopian Tubal Transplants

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Recent advances in gynecological microsurgery have made some but not all tubal origin infertility problems amenable to surgical intervention and treatment. Alternate approaches include in vitro fertilization first reported by Steptoe, however, this approach leaves philosophical, socio-legal and other problems such as traumatic damage to the zygote and potential genetic problems to be solved. We used as our model subject mature New Zealand white, female, rabbits. All the biologic materials in our adhesive system were rabbit derived to minimize immunohistologic rejection.

Of the 10 rabbits on which we performed end-to-end anastomoses of the Fallopian tubes we achieved 8 pregnancies in both uteri, one rabbit died and the remaining rabbit showed patency of the tubes, but did conceive. Following delivery of the fetuses, we investigated the tubes under a scanning electron microscope

and found no anastomoses. Further, we were unable to identify abnormalities in the tubal mucosa.

Our method which requires less time to complete in comparison with conventional methods resulted in a decrease in post surgical complications.

101. Non-Surgical Treatment for Ectopic Pregnancies

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Patients with ectopic pregnancies have been operated immediately after the establishment of diagnoses because of the risk of massive abdominal hemorrhage, though tubectomy was sometimes caused to the sterility. In the present study, we tried to explore the possibility that the administration of Methotrexate alone regains the complete cure of patients. Eight cases in which the diagnosis was confirmed by a variety of clinical findings, were treated by the administration of Methotrexate alone (total doses 75-300 mg). As a result, urinary hCG was decreased to LH-level during 2-6 weeks in all cases except one; the latter received the operation by the reason of progressing abortion. Patency of tubes was confirmed in 4 out of 5 cases which were examined by hysterosalpingo-graphy after the regimen. One out of 8 cases is 6th month of pregnancy, now.

These results suggested that Methotrexate could break down fetal and placental tissues preferentially without damage of tubal tissue. Thus, this regimen is assumed to be quite effective for the treatment of ectopic pregnancies, especially when the preservation of patent tubes is hoped.

102. Studies on the Effect of Epidural Morphine Injection on Fetal Heart Rate and Maternal Plasma ACTH and Cortisol Concentration

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We examined the effects of epidural morphine on the fetal heart rate (FHR) and the maternal plasma levels of ACTH and cortisol which relates to stress during labor. 20 primiparas as the subjects had lumbar epidural injections of 2 mg of morphine diluted in 10 ml of 0.9% saline after the onset of labor FHR was recorded for 120 minutes by using the fetal scalp electrode, analyzed every 10 minutes, and compared to the control which is the average FHR 60 minutes before the injection. ACTH and cortisol were measured by radioimmunoassay.

Significant decreases were recognized in the FHR-baseline after 30-110 minutes from the injection, in the oscillatory amplitude after 40-110 minutes, in the oscillatory frequency after 60-100 minutes, in the STV after 60-100 minutes, and in the acceleration after 30-100 minutes. No significant change was recognized in the deceleration. Comparing to the control, a definite tendency was not observed in the maternal plasma ACTH concentration during 120 minutes after the injection. Plasma cortisol concentration slightly decreased 40 minutes after the injection, and then showed no change until the end of the 120 minutes after the injection.

103. Studies on Neurobehavioral Responses (Scanlon's Test) in Newborns after Epidural Anesthesia with Various Anesthetic Agents for Cesarean Section

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In order to examine the influence of larger doses of anesthetic drugs on newborns, 146 infants delivered by cesarean section with epidural anesthesia employ-