CORE

Міністерство освіти та науки України Сумський державний університет Медичний інституту



## АКТУАЛЬНІ ПИТАННЯ ТЕРЕТИЧНОЇ ТА ПРАКТИЧНОЇ МЕДИЦИНИ

# Topical Issues of Clinical and Theoretical Medicine

## Збірник тез доповідей

IV Міжнародної науково-практичної конференції Студентів та молодих вчених (Суми, 21-22 квітня 2016 року)

## **TOM 2**

Суми Сумський державний університет 2016 **Выводы**. Открытые оперативные вмешательства занимают главенствующую роль в лечении КН. На их долю приходится 55,2% от всех вмешательств, 44,8% занимают малоинвазивные методы.

#### PROGESTERONE MYOMETRIAL EFFECT AND MECHANISM FOR THE PREVENTION OF PRETERM BIRTH

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Current evidence suggests that prolonged treatment with progesterone and 17  $\alpha$ -hydroxyprogesterone caproate (170HPC) may reduce the incidence of premature delivery in high risk patients with a history of spontaneous preterm birth or with a short cervix but failed to understand the mechanism on myometrium.

We studied the progesterone mechanism for the prevention of preterm birth in high risk patient with short cervix and recurrent preterm birth by our hypothesis that progesterone has a direct inhibitory effect on spontaneous myometrium contractility.

We divide the group of pregnant women with recruited highly risk comprises of 75 single pregnant women of high risk, 20 of them is their first pregnancy but had short cervix, 40 of them had history of spontaneous abortion due to short cervix and 15 of them had history of spontaneous abortion from other etiologies. 1<sup>st</sup> group 40 of the women were given vaginal progesterone,100mg daily from 24 to 37 weeks of gestation and  $2^{nd}$  group , the placebo group comprises of 35 of the pregnant women who received placebo.

We used vaginal ultrasound to check for the size of the cervix and also did progesterone clinical analysis based on the symptom of low abdominal pain and ultrasound indication of short cervix.

The result showed that 80% of 40 people in progesterone group had full term labor above 37 weeks and 20 % couldn't reach full term and had cesarean section ranging from  $34^{th}$  to  $37^{th}$  week and we collected myometrium biopsy on the process. But 90% had spontaneous abortion for the  $2^{nd}$  group mostly on those with history of short cervix and history of spontaneous abortion.10 % reached full term mostly from group of history of spontaneous preterm abortion of other etiologies and myometrial biopsy was collected on those that had caesarian . Myometrium biopsies which were obtained from the upper border of the lower uterine segment incision during caesarean section the Samples were divided and used for contractility measurements. And we discovered that progesterone, exerted consistent, rapid and sustained inhibition of the amplitude of spontaneous myometrial contractions in vitro at high concentrations.

### INVESTIGATIVE UTILITY OFMICROSATLITE GENOTYPING FOR MOLAR PREGNANCY TESTING

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Hydatidiform mole also known as hydatid mole, molar pregnancy, gestational trophoblastic disease is a type of fertilization abnormality, when only the conceptus trophoblast layers proliferates and not the embryoblast, no embryo develops, this is called a "Hydatidiform mole". Due to the continuing presence of the trophoblastic layer, this abnormal conceptus can also implant in the uterus or ectopically. The trophoblast cells will secrete human chorionic gonadotropin (hCG), as in a normal pregnancy, and may appear maternally and by pregnancy test to be "normal". Prenatal diagnosis by ultrasound analysis demonstrates the absence of an embryo.

There are several forms of hydatidiform mole: partial mole, complete mole, gestational trophoblastic tumor. Many of these tumours arise from a haploid sperm fertilizing an egg without a female pronucleus (the alternative form, an embryo without sperm contribution, is called parthenogenesis). The tumour has a "grape-like" placental appearance without enclosed embryo formation. Following a first molar pregnancy, there is approximately a 1% risk of a second molar pregnancy. The incidence of hydatidiform mole varies between ethnic groups, and typically occurs

in 1 in every 1500 pregnancies. All hydatidiform mole cases are sporadic, except for extremely rare familial cases. Three major ancillary diagnostic tests: p57 immunohistochemistry (complete mole), Flow cytometry (partial mole)Microsatellite genotyping (complete and partial mole), but I will be concentrating on microsatellite genotyping as a diagnosis of molar pregnancy.

To determine the technical performance of microsatellite genotyping by using a commercially available multiplex assay, and to describe the application of additional methods to confirm other genetic abnormalities detected by the genotyping assay. Microsatellite genotyping data on 102 cases referred for molar pregnancy testing are presented. A separate panel of mini STR markers, flow cytometry, fluorescence in situ hybridization, and p57 immunohistochemistry were used to characterize cases with other incidental genetic abnormalities.

Forty cases were classified as hydatidiform mole (30, complete hydatidiform mole; 10, partial hydatidiform mole). Genotyping also revealed 11 cases of suspected trisomy and 1 case of androgenetic/biparental mosaicism. Trisomy for selected chromosomes (13, 16, 18, and 21) was confirmed in all cases by using a panel of mini STR markers.

This series illustrates the utility of microsatellite genotyping as a stand-alone method for accurate classification of hydatidiform mole. Other genetic abnormalities may be detected by genotyping; confirmation of the suspected abnormality requires additional testing.

#### FEATURES OF RADIODIAGNOSIS OF SYNDROME OF PLEURAL EFFUSION

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The epidemic of tuberculosis, registered in Ukraine in 1995, remains a threat to society. Unfortunately, it cannot be overcomed, despite all the efforts.

In the last two decades against the background of a high general incidence of all tuberculosis is more common extrapulmonary localization. Among such form the overwhelming majority - tuberculosis of the pleura. The leading signs of the disease are chest pain, coughing, increasing of shortness of breath, accumulation of pleural effusion.

The verification of the last usually causes considerable difficulties. The main method of diagnosis of syndrome of pleural effusion (SPE) is radiological. The most commonly used methods are the usual radiography of the chest cavity and ultrasound (US).

Correctness of a diagnosis and timely initiation of treatment often depend on method of diagnosis. This, in turn, affects the further course of the process. So, late established diagnosis of tuberculous pleurisy leads to its chronicity, pulmonary and extrapulmonary complications the development of resistance of Mycobacterium tuberculosis to anti-TB drugs.

All of the above significantly complicates treatment, makes it long and as expensive and in considerable number of cases requires an extremely complicated surgery.

The purpose of the study – to analyze the link between radiological methods and the time of diagnosis.

Materials and methods. Under our supervision there were 329 persons with the syndrome of pleural effusion, who received treatment in the regional TB dispensary.

Results and discussion. Everyone of investigated were divided into 2 groups. The first amounted 187 (56.8%) patients, in the diagnosis SPE in them was used the classic X-ray examination of the chest cavity. The second, a comparison group, included 142 (43.2%) patients - investigated by ultrasound.

Conducted an analysis of the duration of survey depending on the method of diagnosis. Thus, the term of diagnosis verification in the first group was on average  $36 \pm 5$  days versus  $6 \pm 2$  days in the second group.

Hence, the use of ultrasound in diseases of the pleura more than 4.5 times reduces the time to diagnosis.