LIMSC

Leiden International Medical Student Conference

'Key to the Future'

Abstract Book

9th Edition

11th- 15th March 2015

Leiden, The Netherlands

Abstractbook:
Leiden International Medical Student Conference

Adress:
Leiden University Medical Center
Albinusdreef 2
2333 ZA Leiden
The Netherlands

Postal Address:
M.F.L.S for the attention of LIMSC
K1-69
PO Box 9600
2300 RC Leiden

limsc@lumc.nl
www.limsc.nl

Text:
Organizing Committee LIMSC 2015

Lay-out:
S.E.M. Anema

Changes of the Hormonal Functions of Placenta in Pregnant Women Afflicted with Tuberculosis

Abstract nr: A309
Author: Michael Alan Fishbach
Co-author: Andriy Berbets, Olga Myhalatyuk
University: Bukovinian State Medical University, Chernivtsi Ukraine

Introduction
Substantial advances in our understanding of placental function have established the importance of the fetoplacental complex and its role in hormonal function. However, the functional changes in women afflicted with tuberculosis have not been well established.

Methods
A study of the hormonal function of the fetoplacental complex had been performed in 121 pregnant women afflicted with tuberculosis. The first group included 54 patients with active infiltrative tuberculosis. The second group consisted of 67 pregnant women who suffered from tuberculosis and received anti-tuberculosis treatment before their current pregnancy. The control group included 40 healthy pregnant women.

Results
It has been established that in terms of 38-40 weeks of pregnancy blood levels of estradiol, progesterone and placental lactogen were decreased in gravidas of those who suffered from active forms of tuberculosis. The index of estradiol in the first group was 16,59±1,56 nanomoles/l, in the second group it was 41,47±1,22 nanomoles/l, in control - 58,23±1,02 nanomoles/l. The levels of progesterone and placental lactogen were respectively 335,38±4,34 nanomoles/l and 134,56±5,36 nanomoles/l in the group of women, who had active tuberculosis, and 535,38±2,32 nanomoles/l and 258,14±5,18 nanomoles/l in females who suffered from tuberculosis and received specific treatment before their current pregnancy. In the control group levels of mentioned hormones were 686,45±3,21nanomoles/l and 285,26±4,23 nanomoles/l.

Conclusion
Hormonal examinations in these pregnant women infected by Mycobacteria tuberculosis was shown to have prognostic significance: namely the frequency of adaptation disorders of newborns were incresed 3.2 times in comparison with the values found in healthy women.

Expression of tyrosinated alpha-tubulin in colonic mucosa epithelium change in inflammatory bowel diseases

Abstract nr: A331
Author: Pavel Peravoshchykau
Co-author: Maryia Stanilevich, Anna Portyanko, Julia Gorgun
University: Belarusian State Medical University, Belarus

Introduction
Inflammatory bowel diseases (IBD) include ulcerative colitis (UC) and Crohn's disease (CD). About 3,7 million people suffer from IBD in Europe and this number increases (ECCO, 2013). Management of these diseases has significantly changed last decade. On contrary some diagnostics methods, including histopathology, haven't improved its diagnostic facilities. It is still totally based on morphologic analysis. By finding molecular marker, which can be used in routine practice, we can increase diagnostic power of this method. We consider that such marker can be found in tubulin family. Our objective was to specify changes of expression of tyrosinated alpha-tubulin (Tyr-tubulin) in colonic mucosa epithelium in IBD patients.

Methods
Research was performed on 133 biopsy fragments of colonic mucosa from 26 patients with IBD (19 UC and 7 CD) and from 8 normal controls with unremarkable colonic mucosa. Slides were stained by hematoxylin and eosin and by double immunofluorescence method (IF) with antibodies to Tyr-tubulin and cytokeratin (plus DAPI). First we analyzed inflammation activity. Intraepithelial neutrophils and erosions were counted as signs of active inflammation. Crypt abnormalities and lamina propria infiltrate changes were used as not active inflammation criteria. On the next stage photos of IF slides were taken on 3 fluorescence channels. These images were analyzed by ImageJ program (ver.1.47t): on cytokeratin channel epithelium was autoselected and this selection was used on tubulin channel to measure fluorescence quantity (FQ). Positive and negative IF staining were used to calibrate this value. Final expression value was calculated as percent ratio of sample FQ minus negative control FQ to positive control FQ minus negative control FQ.

Results
Expression of Tyr-tubulin was found in all samples. But its level was found to be increased in IBD samples (63,4 (95% CI 58,5–68,1) vs. 48,3 (95% CI 42,3–54,3), p=0,00). Moreover expression was higher in not active inflammation (68,9 (95% CI 60,5–77,4) vs. 61,1 (95% CI 55,3–66,9), p=0,03). There was also difference between UC and CD samples: 57,6 (95% CI 51,9–61,2) vs. 77,5 (95% CI 69,6–85,4), p=0,00.

Conclusion
These results suggest that Tyr-tubulin expression in mucosa epithelium changes in IBD. There is a difference in expression between UC and CD. It was also found that inflammation activity has an impact on Tyr-tubulin expression level.