Of these 32 patients 29 had positive tTg. This gives a sensitivity of 90%. Thirteen patients had tTg greater than 100, 12 had positive intestinal biopsy; this gives a sensitivity of 92%.

**Conclusion** Although the sensitivity of tTg in our series is 90%, it is reasonable to assess small intestinal biopsy in before subjecting children to lifelong gluten free diet.

**References**

1. **Methods** We proceed a retrospectiv study leaded on a group of children investigated for CD in ‘Grigore Alexandrescu’ Emergency Children’s Hospital from 2007 to 2012 that underwent HLA typing. Inclusion criteria were all patient with mild enteropathy (Marsh 1, 2, 3a), moderate elevated values of tissular tranglutaminase (tTG) antibodies (between cut off point and 5 times normal value) and poor response to gluten free diet. The medical records of all patients investigated for CD were reviewed.

**Results** 164 patients were performed HLA typing; 26 patients satisfied the inclusion criteria; 20 (76.9%) of these had HLA DQ2/DQ8 present and 6 (23.07%) had a negative test for HLA DQ2/DQ8. The mean age of our investigated group was 23.46 months and the mean age for HLA DQ2/DQ8 negative group was 21.08 months. Sex distribution indicated 9 boys and 17 girls. Gastrointestinal symptoms dominated: 17 children had diarrhea, 9 had failure to thrive and 13 patients had both chronic diarrhea and poor weight gain.

**Conclusion** Patients with clinical suspicion of CD that have moderate levels of tTG antibodies, mild biopsy changes and poor response to gluten free diet need to have HLA typing typically at younger ages (under 3 years old).

**Discussion** LWD should be included in the diagnoses of short stature, especially if the child is disproportionate and has family history. In our case, because the mother is affected, the deletion of the SHOX gene is inherited in the pseudoautosomal region of X chromosome. The transmission is pseudodominant and so the daughters of the index case will inherited the X chromosome of the father and will be affected. The boys will inherited the Y chromosome of the father. Prenatal diagnosis and genetic counseling is available for this syndrome. Treatment options include administration of recombinant growth hormone to improve final adult height.

**Conclusions** Thus, it appears that some children with trisomy 21 have relatively reduced lymphocyte bioenergetics. The biological implication of this finding (variation) requires further studies.

**References**

1. **Background and Aims** Genes encoding HLA DQ2/DQ8 are associated with celiac disease (CD) and testing for their presence has high negative predictive value for the diagnosis. The aim of this study was to assess the role of HLA typing in symptomatic individuals in whom the diagnosis of CD is uncertain.

**Methods** Peripheral blood mononuclear cells were isolated from whole blood of trisomy 21 and control children and immediately subjected to assays. Peripheral blood mononuclear cells from 16 children with trisomy 21 were used for control children (age range from 20 months to 6.12 years). The rate of respiration (k, in mM O₂ per min) thus, was calculated as k = (Δ[O₂])/Δt, where Δ[O₂] is the change in oxygen concentration over the time period Δt.

**Results** The rate of respiration (k, in mM O₂ per min), thus, was k = 0.37 ± 0.12 (SD). For children with trisomy 21 (age = 7.2 ± 2.6 years, n = 26), the mean (± SD) value of k, (in mM O₂ per min per 10⁷ cells) was 1.36 ± 0.79 (coefficient of variation = 58%; median = 1.17; range = 0.60 to 3.12; -2SD = 0.61). For children with trisomy 21 (age = 7.2 ± 2.6 years, n = 26), the value of k was 0.32 ± 0.62 (coefficient of variation = 76%; median = 0.60; range = 0.20 to 2.80), p<0.001. Fourteen of 26 (54%) children with trisomy 21 had k values of 0.20 to 0.60 (i.e., < -2SD).

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Wilson’s disease. Detection of WD in children and young adults remains very difficult. The most important investigation is liver biopsy with the assessment of liver copper. Genetic analysis may help in doubtful cases.

**Abstracts**

**DNA DAMAGE AND APOPTOSIS EVALUATION IN LEUKOCYTES OF ICTERIC NEWBORNS AFTER PHOTO THERAPY TREATMENT BY USING OF THE NEUTRAL COMET ASSAY**

M Shahidi, SA Mesbah-Namin, S Heidari. 1Department of Biochemistry and Biophysics Mazandaran University of Medical Sciences, Sari; 2Department of Biochemistry, Tarbiat Modares University, Tehran; 3MSC, Molecular Genetics, Saint Mary Fertility Center, Sari, Iran

**Background and Aims**

Phototherapy is the most common form of treatment for jaundice. One of the various endpoints that can be used to investigate the potential of blood as a predictor of radiosen-sitivity is DNA damage and apoptosis. The aim of this study was to investigate the possible relation between phototherapy and DNA damage and apoptosis, in neonates with hyperbilirubinemia.

**Methods**

The study included 15 healthy full-term newborns as control. The phototherapy group consisted of 30 non-physiologic jaundice that after 16 hours phototherapy, 1 ml peripheral venous blood were obtained of them.

**Results**

DNA damage immediately after phototherapy termination (IFT) was higher in jaundice infants than control one (p<0.01). After 24 hours cells repaired their damages, as there wasn’t any difference between these groups about this value. DNA damage in the phototherapy group was higher at IFT than 24 hours after that, but in the control one there weren’t any differences between them (respectively p<0.001, p>0.05). Apoptosis value at 24 hours after phototherapy termination was higher than the IFT in the phototherapy group and was statistically significant (P<0.001).

**Conclusions**

Since repair proofreading and fidelity properties isn’t absolutely, then always this is probable that errors maybe occur during extensive DNA damages repair and finally these errors can cause mutation in DNA. If this event be in important and sensitive region of genome, harmful effects would menace phototherapy-treated infants’ later-life. So this is necessary to investigate of long-term genotoxic effects of phototherapy in phototherapy-treated neonates.

**INTERLEUKIN-13 RECEPTOR α1 GENE POLYMORPHISM AND IL-13 BLOOD LEVEL IN ATOPIC AND NON ATOPIC ASTHMATIC AND ALLERGIC RHINITIS CHILDREN**

YM Hussein. Medical Laboratories Department, College of Applied Medical Sciences, Taif University, Taif, Saudi Arabia

**Objectives**

To assess the value of serum interleukin (IL) 13 levels as an immunological marker in atopic upper respiratory diseases, to clarify its differences in atopic and non atopic bronchial asthma and to determine the role of an IL-13 R α1 gene single nucleotide polymorphism (SNP) (A1398G) in the pathogenesis of these diseases.

**Methods**

Seventy-five patients were compared with 25 age-matched healthy volunteers. Serum total immunoglobulin (Ig) E and IL-13 levels were measured by enzyme-linked immunosorbent assay and the IL-13 R α1 gene (A1398 G) was screened by specific polymerase chain reaction.

**Results**

There was a non significant association between G allele frequencies of the IL-13 R α1 (1398) gene polymorphism as compared to in controls. There were a significant increase in the serum level of total IgE & IL-13 towards heterozygous AG and homozygous GG than homozygous AA in atopic asthma, non atopic asthma, and allergic rhinitis patients. There was a significant increase in the serum level of total IgE & IL-13 towards homozygous GG than heterozygous AG in atopic asthma non atopic asthma, and allergic rhinitis patients for IgE and in all groups for IL-13.

**Conclusion**

Interleukin-13 receptor α1 subunit gene A1398G polymorphism does not contribute to asthma or allergic rhinitis susceptibility, although the interleukin-13 receptor α1 subunit gene locus might be involved in the control of immunoglobulin E production, IL13 can used as an immunological marker in atopic upper respiratory diseases and to differentiate between atopic and non atopic bronchial asthma.

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