Langerhans Histiocytosis, which was eliminated by the oncological analysis. She was referred to the allergy and immunology department, where a phagocytic disorder was considered, an investigation was made showing the deficiency of IL-12 and IFN gamma, characterizing a primary immunity error, whose diagnosis was only made about 3 years after the initial manifestations. In the last year, she was diagnosed with salmonellosis after positive fecal culture from multiple episodes of mucosanguinolent diarrhea. Currently, she is still using Methotrexate, 15 MG/M2/Weekly, remaining in good general condition and uneventful as fever, abdominal pain and arthralgia, also not requiring hospitalization since the beginning of treatment, being in the use of the third dose of that. The prognosis of the patient was satisfactory, in spite of the lack os resources in the public system of her hometown, in the northeast of Brazil. Primary immunodeficiency is a difficult diagnosis to conclude due its rarity and the need of high cost laboratory tests. In Brazil, the prevalence of cases is underestimated and the number of marriages between first-degree relatives favors the occurrence. However, it should always be remembered in these patients with atypical and repeat infections. In case of infections with intracellular microorganisms, defects on the interleukin 12/IFN gama axis should be suspected and early diagnosis is essential to establish appropriate treatment.

1566 | Regulation by muramyl peptide GMDPA effector functions of NK cells from peripheral blood of healthy donors

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Background: The main function of NK cells is the destruction (lysis) of infected macroorganism cells and tumor cells. Lysis of target cells is predominantly provided by perforin and granzymes. The second most important function of NK cells is the production of cytokines and chemokines. NK cells primarily produce pro-inflammatory cytokines (IFN-γ, TNF-a), as well as inflammatory chemokines MIP-1a/p and RANTES, thereby involving other cells of the immune system in the immune response. In order to determine the mechanism of the previously discovered antitumor activity of GMDPA, it was of interest to study the effect of GMDPA on the functional activity of natural killer cells.
Method: Whole blood from healthy donors was diluted with phosphate-buffered saline (Gibco, Gaithersburg, MD) and then layered on top of human cell separation media (Cedarlane, Burlington, ON), mononuclear cells were isolated. Natural killer cells were isolated using a NK Cell Isolation Kit (Miltenyi Biotec, Bergisch Gladbach, Germany) negative magnetic selection sorting kit. GMPDA (AO PEPTEK, Moscow, Russia) was added at a concentration of 10 μg/mL. The drug was added at 6 and 16 hours, total RNA was isolated. The reverse transcription reaction was performed using the Ambion TotalPrep cRNA Amplification Kit (Invitrogen, USA). The level of gene expression was studied using the Illumina HumanHT-12v4 Expression BeadChip kit (Illumina, USA) on an Illumina iScan instrument (Illumina, USA). The data were processed using the Genome Studio software application package (v 2011.1, Illumina).
Results: Analysis of the transcriptome of NK cells cultured in the presence of GMDPA indicates that the transcription of genes whose products are involved in signal transduction from external membrane receptors, in particular, MAPK8IP1, MAP2K7, MAP4K2, MAP3K6, MAPKAPK5, is enhanced in cells. In addition, GMDP-A more than 2 times increases the expression of interferon genes of all types, and TNFRSF9 increases by more than 3 times. The most stably expressed genes, under the influence of GMPDA, are the interferon alpha genes. Gene expression depends on the time of exposure with the drug and is most pronounced 16 hours after the addition of GMPDA.
Conclusion: Muramyl peptide GMDPA regulates the effector functions of NK cells through activation of MAPK pathways and a superfamily of tumor necrosis factor receptors.

TPS 07
DERMATOLOGY

0071 | A case of atopic eczema treated safely with dupilumab during pregnancy and lactation

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Case Report: Dupilumab, an IgG4 antibody against both the IL-4- and the IL-13-receptor, is licensed for atopic eczema (AE). There have been few data about dupilumab in pregnancy and lactation. Animal studies did not show any harmful influence of dupilumab on reproduction.
A 35 year old female who suffered from AE since early childhood became pregnant 1.5 years after start of dupilumab therapy. She had two injections of dupilumab while not being aware of the early pregnancy before stopping the therapy. In week 20, she reintroduced dupilumab on her own as topical therapy was not sufficient to control the disease. Eight weeks later the skin had improved significantly. The course of the pregnancy was without any complications. In week 40, she delivered a healthy baby girl. The breastfeeding period was uncomplicated during the next 4 months of observational period.
Comment: The EMA reported study data where the spontaneous abortion rate under dupilumab did not exceed the general spontaneous abortion rate. Until today, neither clinical nor experimental data nor theoretical considerations point to dupilumab's teratogenic capacity. Our case report shall contribute to this experience by showing no adverse effect of dupilumab in pregnancy or in lactational period, neither for mother nor for the child.