The cytokine balance in patients with chronic epipharyngitis of Epstein-Barr virus etiology

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Introduction:
The inflammatory diseases of pharynx are very widespread among pathologies of upper respiratory tracts (URT) and make 10-13% from all otorhinolaryngologic lesions. One of the most frequent reasons of inflammatory processes are herpes viruses. Determination of the cytokine status is one of the most important characteristics of immune system which allows to understand the pathogeny of EBV-infections much better.

Goals:
to study the maintenance of cytokines - interleukin-2 (IL-2-proinflammatory) and interleukin-4 (IL-4-antiinflammatory) - in the blood serum of patients with chronic epipharyngitis and different forms of EBV-infection. Estimate the connection of these indexes and possible use of them as the prognostic criteria of activity of infectious process.

Methods and objects:
32 patients between 18 and 35 years who suffered from chronic epipharyngitis with chronic EBV-infection in the background had been inspected by us. Endorhinoscopic inspection of epipharynx was conducted to all patients. Serologic research by the IEA- method on antibodies to EBV was also performed to every patient. The presence of serologic markers of infection: IgM-VCA, IgG-EA, IgG-EBNA was studied. DNA of EBV from blood, saliva and scrapes from the tonsil were analyzed by the PCR-method. The IL-2 and IL-4 maintenance was also determined in the blood serum.

Conclusions:
The study of cytokine status of patients with chronic epipharyngitis of EBV etiology enables to define direction of development and estimate the course of the pathological process and character of immune answer of patient. There in no doubt that cytokine disbalance namely the level of IL-2 insufficiency in the blood serum determines the orientation and course of infectious process which means it is the marker of the process` activity.

The change in the trend of STD infections after the emergence of HIV/AIDS

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Introduction:
HIV and STD's are linked by common high risk behaviours. The classic STDs and HIV interact in bidirectional and mutually enhancing manner. Persons who have STD is 2-5 times susceptible to HIV and persons who have genitoulcerative STDs can be more infectious and can easily transmit HIV to an uninfected partner .So we expected a change in the trend of STD after the emergence of HIV .

AIM: This study aimed to study the trend of STD's before and after the emergence of HIV and the factors influencing the change in trend of STD's.

Material and methods:
This retrospective study was done by screening the records of STD department ,Stanley Medical College from 1982 till 2005.The trend of classic STD's over this period was analyzed .The different measures undertaken by NACO[National AIDS Control Organization] to control HIV like mass education, syndromic management and treatment of commercial sex workers at different time periods had definite impact in the trend of STD infections. The results were interrelated over time frame with the different measures undertaken to control HIV by NACO.

Results.
A total of 98,302 patients[number of people exposed to risk factor] attended the STD department from 1982-2005.The incidence of STD from 1982-1993 was high, 43.63% [Syphilis-13.21%,gonorrhea-5.4% ,chancroid-7.08% ,V.G.-2.25%,LGV-2.12%], when only information and education was given as a preventive measure. The syndromic management was started in 1994 and this has reduced the incidence to 34.33%[Syphilis-6.13%,gonorrhea-3.94% ,chancroid-5.82% ,V.G.-2.04%,LGV-1.60%] and this trend continued up to 2001.After 2001 the effective control of source of infection was started by ensuring active participation of commercial sex workers 1) by enrolling them through NGO 2) by screening them 3) by treating them by syndromic approach 4) by educating them to encourage their partners to use condoms. This measure has brought down the incidence of STD's dramatically to 12.76%[Syphilis-2.2%,gonorrhea-1.1% ,chancroid-2.71% ,V.G.-0.27%,LGV-0.14%].

Conclusion:
Though effective antibiotics were available, the incidence of curable STD has remained high affecting mainly the economically productive age group [20-45yrs]. The various measures undertaken to control HIV has had an effect on the incidence of curable STD's. In the early stages up to 1993 when the stress was on the prevention of spread of infection by education and information, there was no perceptible change in the incidence of STD .When the syndromic approach was started in 1994, it decreased the incidence from 45.63% to 34.33%. But taking effective steps in controlling the source of infection (i.e.)by ensuring the active participation of commercial sex workers has reduced the incidence to 12.76%.But the curable STDs being reported sparingly to the point of extinction. The introduction of Anti Retroviral Therapy to Commercial Sex Workers will reduce the spread of HIV and the incidence in the near future.

Immunological aspects of neuroinfections of bacterial nature

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Introduction:
The significant growth of bacterial and virus nature neuroinfections morbidity has been noticed in the hole world during the last years. These infections form more than half

of all neurological diseases. This pathology has constant high level of morbidity and mortality with the development of severe brain lesion, that has fatal outcome in 8-26% cases during the last years in Ukraine. This tendency can be explained by the change of properties of circulating infectious agents and patients' body reactivity. These factors significantly influence the clinical course character. On one side, the antibiotic resistance of dominating microorganisms reduces the therapy efficiency. On the other side, the oppression of the immunological reactions doesn't allow to eliminate pathological gene from the patients' body. The aim of our research was to study the dynamics of indices of phagocytal reactions, cellular and humoral parts of immune system among patients with bacterial meningitis and meningoencephalitis of meningococcal and pneumococcal nature in dependence of etiology and severity grate of pathological process.

Materials and Methods:
The countable indices of cellular and humoral immune system parts has been determined in the clinical course (the main populations and subpopulations of T- and B-lymphocytes with the help of monoclonal antibodies to CD-structures membranes: CD3, CD4, CD8, CD86, CD72; also Ig A, G, M, circulating immune complexes, compliment, phagocytal reactions).

Results:
We have examined 94 patients with bacterial meningities and meningoencephalitis of meningococcal (42,6%) and pneumococcal (57,4%) nature.Brain edema was observed in 59,6 % cases (sopor - in 58, 3%, I stage coma- in 22, 2%, II stage coma – in 19, 5 % cases). Nervous agitation took place in 33, 3% patients. Moderate clinical course was observed in 30 (31, 9%) patients, severe clinical course in 52(55, 3%). Extremely clinical course with fatal outcome took place in 12 (12, 7%) patients (10 cases of pneumococcal and 2 cases of meningococcal nature).

Conclusion:
Pneumococcal lesion of brain is characterized by the more severe clinical course.The level of consciousness lesion is one of the leading clinical symptoms of the patients' state severity and possible fatal outcome. Decreasing of adaptation mechanisms by means of significant oppression of T-cellular and humoral parts of immune system and indices of neutrophil phagocytosis activity reveal in patients with severe course of meningococcal and pneumococcal nature meningitis. The majority of immunogramm indices achieve the normal level in patient with moderate clinical course in the period of early reconvalecensy. But the authentically expressed immune status changes kept the severe clinical course raise a question of immunomodulators use necessity.

Topical Myrtus communis extract application vs. acyclovir treatment of recurrent herpes simplex lesions

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Backround :
Herpes simplex viruses (HSV-1 and -2) are important pathogens for humans, especially in the case of highly susceptible adults. Moreover, HSV-2 has been reported to be a high risk factor for HIV infection. Therefore, the discovery of novel anti-HSV drugs deserves great efforts. In this paper, we have shown anti-HSV substances from a natural source, including Myrtus communis extracts as a medicinal plant that grows in Iran and Mediterranean weather and is one of traditional Iranian herbal drug. The objective of this research was to investigate the effect of the topical application of Myrtus communis extracts on recurrent attacks of herpes lesions, labial and genital, as compared to acyclovir cream.

Material/Methods:
32 adult patients with a history of recurrent attacks of herpetic lesions, 16 labial and 16 genital, were treated by topical application of Myrtus communis extracts for one attack and acyclovir cream for another attack.

Results:
For labial herpes, the mean duration of attacks and pain, occurrence of crusting, and mean healing time with honey treatment were 35%, 39%, 28% and 43% better, respectively, than with acyclovir treatment. For genital herpes, the mean duration of attacks and pain, occurrence of crusting, and mean healing time with Myrtus communis extracts treatment were 53%, 50%, 49% and 59% better, respectively, than with acyclovir. 4 cases of labial herpes and 6 case of genital herpes remitted completely with the use of Myrtus communis extracts . The lesions crusted in 6 patients with labial herpes and in 8 patients with genital herpes. With acyclovir treatment, none of the attacks remitted, and all the lesions, labial and genital, developed crust. No side effects were observed with repeated applications of Myrtus communis extracts , whereas 6 patients developed local itching with acyclovir.

Conclusions:
Topical Myrtus communis extracts application is safe and effective in the management of the signs and symptoms of recurrent lesions from labial and genital herpes.

Yeast probiotic in treatment of salmonella and shigella infections

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The shigella and salmonella are the most common pathogen of acute intestinal infections in Ukraine. There are not great benefits of antibiotic therapy of infectious diarrhea due to development antimicrobial resistance and microecological disturbance in colon. There has recently a growing interest in use of Saccharomyces boulardii (S.B.) as a probiotic in the treatment of infectious diarrhea. The effects of prescribing of the non-pathogenic yeast for treatment of shigellosis and salmonellosis are not fully clear. We randomly assigned 173 patients with salmonellosis and shigellosis. Aged between 19 and 49 (mean age 31) years, 86 female and 87 males. Salmonella infection cased by Salmonella enterica enteritidis and Shigellosis – Shigella flexneri 2a. The efficacy of S.B. therapy were investigated in patients who were treated with S.B. at a daily dose between 500/750 mg, ciprofloxacin daily dose 500 mg (3 days), enteroadsorbents,