Our observations suggest an effect of natural UVB radiation on enteric viruses presence; however, it is necessary to carry out additional experimental work supporting this idea, relevant for tropical countries.

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68.034
Fear, Stress, and Reported Pandemic Influenza Response among University Students in the US

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Background: Although vaccines and non-pharmaceutical interventions (NPIs), such as quarantine and mask use, are considered important aspects of pandemic response to influenza, few studies have investigated the influence of fear and stress in relation to compliance with NPIs.

Methods: A computer survey assessing demographic factors, vaccination rates, reported levels of fear related to pandemic influenza and compliance with recommended NPI procedures, such as mask use, social distancing and quarantine, and a validated perceived stress scale, were given to participants (N = 1,092) from January to February 2008. Survey questions were analyzed using chi-squared tests and logistic regression to estimate Odds Ratios (OR) and 95% Confidence Intervals (95%CI)

Results: Among survey respondents, 45% were male and 55% female. 85% of respondents reported that they must be very or somewhat afraid to wear a face mask during a pandemic. Females were significantly more afraid of pandemic influenza than males (p = 0.02). However, females reported needing to feel more afraid in order to change daily activities during a pandemic, including avoiding air travel, public events, religious services, and self quarantine, compared to males (all p < 0.05). The odds of being more fearful of a pandemic were significantly higher among those with greater stress levels (OR = 1.53, 95%CI 1.24-1.89, for a 10 unit increase in stress scores), adjusting for age and gender. Subjects with greater levels of stress reported needing significantly lower levels of fear to self quarantine (OR = 0.67, 95%CI: 0.48-0.94) and reduce contact with people outside of their residence (OR = 0.72, 95%CI:0.54-0.96), compared to those with lower stress levels

Conclusions: This study identified significant stress-related differences in response to pandemic influenza related questions. Further studies are needed to determine how to target pandemic preparedness measures among young adults in the US with a consideration of perceived stress.

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68.035
Expanding Corticosteroid Use in the Developing World as a Factor in the Epidemiology of Emerging and Reemerging Infectious Diseases

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Background: The continually expanding use of corticosteroids and other steroid products in many parts of the developing world is an important factor impacting on the immune-competence of large numbers of people, and thus a potential variable in human susceptibility to various emerging and reemerging infectious diseases, including influenza A(H5N1). Immune-compromised individuals also provide ideal hosts for the further evolution of disease-causing organisms. In many countries, corticosteroids are common-often covert-components in a rapidly expanding range of products including those labeled as herbal or traditional (e.g., jamu), as well as in over-the-counter and prescription medicines. Such usage patterns act to enlarge the already significant numbers who are immune-compromised due to diseases such as tuberculosis and HIV/AIDS. In poor populations, steroid use can but compound the problems of reduced health status due to poverty, e.g., under-nutrition, crowded living conditions, and the lack of the infrastructure necessary to provide clean water, good sanitation, and adequate shelter.

Methods: Extended ethnographic research on the procurement, distribution, sales, and uses of jamu and other types of steroid-containing medicines in both urban and rural populations.

Results/Conclusions: This illustrated presentation provides: (1) frontline, fieldwork-based information on the scale and frequency of consumption of corticosteroids in various forms (whether as covert or overt ingredients); (2) an account of the perceived desirability of steroid-containing medicines, their dominant uses, and key effects/side-effects in the dosages commonly used; (3) brief consideration of the scientific literature on the immune-modulating effects of corticosteroids, and its implications regarding current use patterns in the developing world; and (4) an argument for the inclusion of questions regarding herbal and traditional medicine use, as well as use of other steroid-containing medicines, in the epidemiological investigation of emerging and reemerging infectious diseases, including in the WHO guidelines for research on Influenza A(H5N1).

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68.036
Female Genital Mutilation: Medical Complications of a Human Right Violation

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Keywords: Female genital mutilation; Human right; HIV/AIDS; Tradition; Complication

Background: Female genital mutilation (FGM) is a deeply rooted cultural tradition observed primarily in Africa and
among certain communities in the Middle East and Asia. According to estimates by WHO, up to 140 million girls and women have undergone FGM, and each year another 4–5 million are thought to be at risk of this human right violation. The aim of this study was to evaluate the medical complications of this procedure in order to attract healthcare professionals’ attention to this problem.

Methods: This cross-sectional study has been performed on more than 340 women undergo this procedure in south of Iran during 2004–2007. Demographic data and complications of FGM in each woman have been gathered carefully by interviews, history taking and physical examinations in a few women.

Results: The mean age of participants were 23 ± 4 y/o and 84% married. All of them forced to undergone FGM by their parents at mean age of 3.3 y/o. The result of this study demonstrates different immediate and delayed complications. 57% of the interviewed women had experienced significant immediate complications such as bleeding, shock, wound infection and swelling. Delayed complications were reported in 32% of these women reported as painful and difficult menstruation, pelvic infections, urinary tract infections, massive hemorrhage after delivery and obstructed and prolonged labor. Terrible life-long psychological trauma should be added to these physical complications that presented in all of women. None of these women reported experience of orgasm during their sexual life. In addition, prevalence of HIV/AIDS was significantly higher in these women (P < .0001). Fortunately no mortality has been reported in these women in period of study.

Conclusion: Findings of this study highlight the need for heightened awareness of issues around FGM so as to better provide adequate physical and psychological support to affected women. Different kinds of interventions should be considered, starting with the development of informative campaigns, training of health workers, institution of a toll-free number, international cooperation programs and the responsibility of the family where the crime is committed. The result of this study discusses the possible relationship in terms of health risk between HIV/AIDS and FGM in the south of Iran and calls for more concerted efforts, including further research in order to address this potential risk. Particularly, health care professionals’ can play a key role in eliminating FGM, as a violation of a person’s fundamental rights to physical and mental integrity of women and girls.

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68.037

Childhood Infections and Vaccination History as a Risk of Multiple Sclerosis

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Background: Multiple sclerosis(MS) is an inflammatory and autoimmune demyelinating disease of the CNS and one of the most common neurological disorders among young adults. The etiology and pathogenesis of MS has not been fully defined but it has been hypothesized to be the result from an aberrant immune response possibly triggered by delayed exposure to a common childhood infection. The aim of this study was to analyze the role of childhood infections and vaccination history in patients with MS.

Methods: This case-control study conducted on 400 cases with definite MS according to McDonald criteria, in whom onset symptoms occurred up to 2 years prior to the interview. An equal number of controls, individually matched by sex, age and area of residence, were included, too. Demographic data and past medical history of both case and control group were recorded through a face to face interview.

Results: The total number of some common childhood viral infections including measles, rubella, chickenpox, and mumps at age ≤7 years was significantly higher in MS cases than in controls. (OR = 1.8, 95% CI 1.4–2.5) Furthermore, we did find a relationship between mumps after 15 years of age(OR = 2.3, 95% CI 1.2–4.3) or measles after 15 years of age(OR = 2.8, 95% CI 0.8–9.1) and MS. Our results demonstrated that individuals who suffered from infectious mononucleosis, a marker of late infection with the Epstein-Barr virus, have an increased risk of MS. Concerning vaccinations, no statistically significant differences were found between groups. However, the age at which MS patients were immunized against poliomyelitis was significantly higher than the corresponding age for controls (15.8 ± 8.9 years, P = 0.01). In addition, the risk of MS was not associated with birth order or social class or other demographic data.

Conclusion: In conclusion, our findings suggest that measles, rubella, chickenpox, and mumps at age ≤7 years and measles and mumps ≤15 years and individuals with mononucleosis infectious have higher risk of MS. These findings support the hypothesis that individuals who suffered from childhood infectious disease have an increased risk of MS although further studies seem to be needed.

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68.038

World Rabies Day: A collaborative initiative to... Make Rabies History!

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Background: Although the word alone evokes a highly charged response, rabies remains a severely neglected disease. The continuing loss of lives to rabies infection is