LETTER TO THE EDITOR

TAINTED BLOOD ORANGES – SUSPECTED SOURCE OF HIV TRANSMISSION

Dear Editor,

On February 24th 2015, a Facebook post of an unknown user had spread rumor against the consumption of oranges. According to user, the oranges imported from Libya were injected with blood of Human Immunodeficiency Virus (HIV) patients. A number of Facebook users had shared that message without any confirmation and spread the rumor to the whole world1. By December 2015, this rumor was spread across into the geographical boundaries of Pakistan including different Universities. Everyone got involved in the circulation of this message without any confirmation. I had also received this message from an electronic source generated by a reputable management institute of Karachi.

Being a responsible public healthcare professional, I searched on internet that either there are some mutagenic changes that cause transmission of HIV virus from edibles and its transmission from oral use to the humans. I found no evidence based on the transmission of HIV virus from non-human living objects to humans.

The HIV is an infectious disease of human being. The word HIV is the abbreviation of word Human Immunodeficiency Virus2,3. This indicates that HIV virus can only survive inside the human host3,4. People with HIV can continue a normal life without infecting other, if they took proper abstinence from sexual intercourse, blood transfusion and other blood contact activities. The infection spreads by blood contact only, however shaking hands, sneezing, coughing, touching of HIV patient do not cause any harmful effects5. The high risk population group for HIV are injecting drug users6, homosexuals7, multiple sex partners7,8, unprotected sex workers7,8, prostitutes9 and lack of formal education9. Moreover, there is no animal system that can evaluate the pathogenesis of HIV9. In animals another type of virus causes AIDS like syndrome, i.e. FLV (Feline Immunodeficiency Virus), SIV (Simian Immunodeficiency Virus) and BIV (Bovine Immunodeficiency Virus). These viruses do not survive inside the human host. Therefore, person with HIV cannot transmit infection to animals similarly a person cannot get HIV infection from any animal bite or secretions10.

The HIV has some characteristic features that are essential for its survival and those include temperature, pH, humidity, exposure to sunlight and type of body fluids. The HIV is highly sensitive to temperature changes. Increase in temperature reduces the survival rate of HIV from 4 weeks to a week. Besides temperature, HIV needs an appropriate pH for its survival. The optimum pH needed for HIV is 7-8. The pH levels below 7 are unsuitable for long-term survival of HIV4. Orange is a citrus fruit, that is acidic in nature and the pH of orange is 3-4. Therefore based on this information, it is now evident that HIV cannot survive in acidic environment. The red appearance of orange is due to the excess or uneven distribution of anthocyanin – a powerful antioxidant.

Based on my knowledge, HIV virus cannot survive inside the oranges because of its acidic pH and cannot transmit infection to humans because of oral intake, unless there are some mouth ulcers or any oral allergies. In order to confirm, there is a need for some experimental studies on oranges and this is the only way that we can provide evidence regarding the survival of HIV virus into the oranges.

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REFERENCES


