- (b) Countries with possible endemic Zika virus transmission
- (c) Countries at risk of Zika virus transmission
- (d) Countries with no/low risk of mosquito-borne Zika virus transmission

India possibly falls into the third group where mosquito vectors are present but the disease has never been documented. In such cases, the endeavour should be to detect imported Zika cases, the beginning of autochthonous transmission, instances of Zika virus transmission modes other than vector-borne and whenever feasible and appropriate, investigate whether Zika virus was present in the past and the level of intensity of circulation during earlier introductions.

Surveillance, undoubtedly is the key to preventing outbreaks of Aedes borne diseases and thus needs to be strengthened. The Armed Forces may initiate laboratory and clinic based as well as mosquito surveillance centres across the country, especially in high risk areas where dengue and chikungunya are endemic. The clinic and laboratory based surveillance may consist of all fever cases of service personnel reporting to the hospital.^{1,2} Effective implementation of vector management strategies is crucial in prevention of Aedes borne diseases.

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Rina Tilak

Scientist 'F', Department of Community Medicine, Armed Forces Medical College, Pune 411040, India
E-mail address: rinatilak@hotmail.com

<http://dx.doi.org/10.1016/j.mjafi.2016.06.009>

0377-1237/

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Letter to the Editor

Zika: A teratogen and also a sexually transmitted infection!

Dear Editor,

I read with interest the contemporary issue titled “Dengue, chikungunya ... and the missing entity – Zika fever: A new emerging threat” by Tilak et al. published in *Med J Armed Forces India* 2016;72:157–163¹ and was delighted to find such a concise yet scientifically exhaustive article on Zika virus. It is written in a form which gives ample clarity of thought in the midst of prevalent ‘over-information’ in the media about this relevant public health issue. The virus is proving to be a threat not only to the health care systems in the Americas but also a hindrance to international travel, not to mention the threat it has posed on the forthcoming Rio Olympics to be held in Brazil this year.

As a corollary to the paragraph on Zika virus infection's association with microcephaly and other birth defects, it is relevant to mention that Zika virus has been declared a teratogen by the Centre for Disease Control, USA. The report based on which this announcement was made uses the Shepard's Criteria which includes the “rare exposure-rare defect” approach as well as the epidemiological approach for establishing causal association between prenatal exposure to an ‘agent’ and birth defects among neonates/infants.² Though the cases of Zika virus infection have been on record since 4–5 decades, it was only during the 2013 French Polynesian and the 2015 Brazilian outbreaks that its association with birth defects and GBS started to emerge. With Zika now fulfilling the

Shepard's Criteria, the gold standard for teratogenicity, the period of reluctant speculation is over.

Another interesting finding about the virus is its probable transmission by sexual route. Cases are on record where such a transmission is observed.³ The virus has been found to be present in the semen of affected males after 18 as well as 24 days after onset of symptoms. From a preventive perspective, fighting a battle on two fronts viz. mosquito control and sexual transmission prevention will be a double whammy for a large country like ours.

Thus, in the light of Zika being a teratogen and a possible STI, India needs to be on guard for entry of this virus into its population. It will require astute epidemiological surveillance for identifying clustering of birth defects, fetal losses, routine prenatal ultrasounds detecting intracranial calcifications, increased incidence of GBS and also to add Zika to the differential diagnosis of “Fever with rash” syndromic approach. After all, it was the picking up of trends in disease frequency vis-a-vis the presence of epidemic in French Polynesia and in Brazil that initiated the thought process that fetal and neurological defects may be associated with Zika virus. Given the similarity of clinical and epidemiological profile of dengue and Zika fevers, using the approaching dengue season as a large-scale surveillance opportunity at a national level would be worthwhile.

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Maj Kapil Pandya*
DADH, HQ 17 Mtn Div, C/O 99 APO, India

*Tel.: +91 9002511781
E-mail address: kp.md.cm@gmail.com

Received 10 June 2016

<http://dx.doi.org/10.1016/j.mjafi.2016.06.008>
0377-1237/

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Armed Forces Medical Services.

Reply

Dear Editor,

The scientific interest the article has generated amongst its readers is indeed welcome.

The establishment of Zika virus as a teratogen is undeniably intimidating. The only way forward to arrest its deadly impact on human health is the establishment of a surveillance system at national level. Entomological surveillance of Aedes and monitoring insecticide resistance would be crucial in formulation of effective vector abatement measures. The zealous implementation of vector management strategies, optimization of prediction tools, an alert medical fraternity and very importantly community involvement would all significantly contribute to prevention of outbreaks of dengue, chikungunya or Zika.¹

The authors agree that there is a need to include Zika in the differential diagnosis of “Fever with rash” syndromic approach to not only detect Zika activity in India but to also unravel its epidemiology in our country, if activity is noted.

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Rina Tilak
Scientist 'F', Department of Community Medicine, Armed Forces
Medical College, Pune 411040, India
E-mail address: rinatilak@hotmail.com

<http://dx.doi.org/10.1016/j.mjafi.2016.06.008>
0377-1237/

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Letter to the Editor

Fraud and plagiarism: Important problem in scientific publication

Dear Editor,

We read with great interest both Contemporary issues titled “Plagiarism: a silent epidemic in scientific writing – reasons, recognition and remedies” by Debnath and “‘Peer review’ for scientific manuscripts: emerging issues, potential threats, and possible remedies” by Das published in *Med J Armed Forces India*. 2016;72:164–167 and 2016;72:172–174.^{1,2} For sure, presently, there are many kinds of misconducts including several forms of plagiarisms, peer review problems as well as others. Focusing on plagiarism in the article, several forms of

plagiarisms are mentioned.¹ Nevertheless, there are also other more complex kinds of plagiarisms and these cannot be easily recognized.^{3,4} Here, the authors would like to give some examples. First, figure plagiarism is an interesting but hard-to-detect kind of plagiarism. In investigative medicine subjects, the copying of picture is possible and it is not uncommon.⁵ This is very hard to detect by simple computational screening tool that mainly detects verbatim copying.³ The second kind of plagiarism is a translational plagiarism. It is also hard to detect this kind of plagiarism. Sometimes, more than one kind of plagiarisms such as combine figure and