Contribution of Influenza A towards severe respiratory infections: A need for flu vaccination, evidence from Odisha, India

B Dwibedi, J Sabat, S Subhadra, L M Ho, S S Pati and S Panda
AllIMS Bhubaneswar, Regional Medical Research Centre Bhubaneswar, India

Acute respiratory infection is of public health importance in terms of its severe manifestation requiring hospitalization and ICU management. Influenza pandemic (H1N1) 2009 strain put many countries including India into emergency alertness because of sudden rise in cases and lack of preparedness of the hospital facilities to take up the challenge. After this an inclination towards flu vaccination is being observed in different parts of the country, but still it is driven by media havoc on news of H1N1 outbreaks or resurgence, not as a conscious preparedness towards regular flu vaccination. In the state of Odisha, India during flu epidemic seasons, we studied 2863 reported cases of severe ARI suspected with H1N1 in 2009, 2010, 2012, 2015, 2016 and 2017 whereas no cases were reported during 2011, 2013 and 2014. Our laboratory investigations revealed association of influenza pandemic (H1N1) 2009 virus infection in 606 (21.2%) of above cases those required ICU admission or emergency management in hospitals. Hence, 78.8% of severe ARI cases in flu seasons remained influenza pandemic (H1N1) 2009 negative. But of these 349 (12.2%) were shown to be infected with Influenza A virus which are not grouped as influenza pandemic (H1N1) 2009. From the above observation it may be assumed that non-H1N1 Influenza A also contributes towards 12.2% of ICU admissions with severe ARI. Besides above our study during non-flu seasons (n=1044, January to July) shown Influenza A as the second most (23%) common cause after RSV (23.5%). This gives an impression that routine flu A vaccination can prevent severe respiratory illness throughout the year in the country like India but a proper sensitization of the health systems and community would be essential to promote flu vaccination emphasizing its usefulness in regular health care rather than an emergency post-epidemic response.

Biography

B Dwibedi is working as a Medical Scientist at ICMR-RMRC, Bhubaneswar. He has 15 years of research experience in the area of Clinical, Molecular Virology and Clinical trials in tropical diseases. He is also the Nodal Officer of Model Rural Health Research Unit and Viral Research and Diagnostic Laboratory, Department of Health Research, Ministry of Health and Family Welfare, India. He received National Award from ICMR and nominated as a Member of National Academy of Medical Science for Excellency in tropical disease research. He demonstrated alternate regimen for elimination of lymphatic filariasis and has given the first evidence of sub-clinical lymphatic pathology in children with W. bancrofti infection and its reversal with MDA drugs. His evidences on epidemiology of viral diseases and bacterial infections especially in children could move the programme towards introduction of vaccine against Rota and JE virus as well as Haemophilus influenzae b in the regional immunization programme.

bhagirathidwibedi@yahoo.com