

Modified Measles versus Rubella & Tobacco Smoking versus Adolescent Rubella Case Patients

Rubella usually presents as a mild febrile rash illness in children and adults and majority of infected persons are asymptomatic.[1] It can have severe negative effects on the fetuses of pregnant women during the first trimester of pregnancy, like congenital rubella syndrome (CRS).[2] But on account of extensive vaccination of measles and MMR vaccination in early childhood, disease pattern of these vaccine preventable diseases have changed remarkably nowadays.[3] Higher age group adolescent case patients are being examined in enormous numbers.[4,5,6] The more vaccination coverage, the more is the time in between the outbreaks and a shift towards older age groups may be seen as in Thailand and Sri Lanka.[7] In India, states like Himachal Pradesh have achieved the high coverage of measles, a notifiable disease under Universal immunization Program[8] but not rubella and hence no vaccination. We have observed and investigated many single as well as mixed outbreaks of measles, german measles, varicella and herpes joster[9] in the hills of Himachal Pradesh. In outbreak settings, it is usually observed that more than one viruses are concurrently infecting the population, e.g., measles and german measles can go simultaneously; likewise we have also investigated laboratory confirmed measles with chickenpox outbreaks. The presenting complaints are quite confusing in the beginning. Mild febrile rashes are present both in german measles and measles. Symptomatology in both the cases is so similar and fleeting[10] so to pronounce Atypical and to add confusion, the ELISA for both the results are sometimes, bothways (+/_). Then what? We say the cases need to be diagnosed as rubella when the serology supports the symptomatology, or at times, epidemiologically linked cases. We have recorded many of such

outbreaks in outbreak settings; either they are two in one (measles and rubella/or measles and chickenpox); or three in one (measles, rubella and varicella). Such cases have also been labeled as modified measles among health care professionals in the literature.[11] Modified measles is a distinct clinical entity characterized by less intense symptoms and a milder rash which may occur in individuals with pre-existing partial immunity induced by active or passive vaccination.[5]

Second important issue is about one of pertinent findings of rubella outbreak investigation[12] in eight villages including Sperrah and Gargoon of two unvaccinated border hilly districts of Northern Himachal Pradesh in 2007 and also in the multiple vaccine preventable outbreaks of measles, rubella and chickenpox in the later years like in 2009 and 2010[9], due to the prevailing beliefs and barriers in the community, the diet intake has been found to be reduced to the minimum in the form of SEUL RICH DIET AND VANNAN bushes movement on the chest and abdomen of the patients as part of help seeking behavior by the local villagers before or with modern medicines later on, forms the mainstay of the treatment.[7,9] The diet rich in *seul* (A herbal plant with small granules, thought to be hot in nature by the local community members and they are supposed to facilitate the eruption of measles.[12] Traditional beliefs and barriers about german measles/measles do not foster healthy behaviors but they form the mainstay of the treatment part. These granules are also roasted for eating as well as smoked fumes are placed underneath the cot of the ailing patients. Secondly, the smoking habits are quite prevalent in early adolescents (10-20 years) and youth. Eighty percent of the youth

start their first smoking before they reach age of 20 years. This study corroborates the findings. Rubella case patients are more in the higher age group in adolescents, especially in those ones who are smokers. Here the role of ensuring Information, Education Communication (IEC) activities aggressively at all the fronts including health workers and more towards rubella affected areas, modifying help seeking behavior of mothers is extremely important and this dissuades the adolescents and the youth about ill-effects of tobacco. One point of note is that further research is needed to explore the relationship of smoking versus rubella case patients in such outbreak settings.

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