

Socio-demographic profile of adult Measles cases attended at Isolation Disease Hospital, Jaipur (Rajasthan) India

Dr. J.P. Pankaj¹, Miss Vipra Vyas^{2§}, Mr. Arjun Kumar³, Dr. Suresh Kewalramani⁴,
Dr. B.L. Jat⁵

^{1,5}Assistant Professor, Department of Community Medicine, S.M.S. Medical College, Jaipur (Rajasthan) India

²MBBS Student, Government Medical College, Doogarpur (Rajasthan) India

³MBBS Student, S.M.S. Medical College, Jaipur (Rajasthan) India

⁴Associate Professor, Department of Community Medicine, S.M.S. Medical College, Jaipur (Rajasthan) India

[§]Corresponding author's Email: hope.vipra21@gmail.com

Abstract— Measles is a highly contagious disease. It occurs usually in children but it may occur in adults. Present record base study was conducted on records of adult measles cases attended at Isolation Disease Hospital attached to SMS Medical College, Jaipur (Rajasthan) India. It observed that out of total 60 adult measles cases attended in year 2018, 37 (61.67%) were male and 23 (38.33%) were females. Majority of cases were in 26 years to 45 years age group i.e. 68.33% followed by 16-25 years, 46-55 years and 55 to 65 years of age group. When significance of difference in sex wise distribution of cases as per age was analysed it was found without significant difference. 78.33% were Hindu rest were Muslims. Likewise 56.67% were from rural areas and rests were from urban areas. History of epidemiological link was found in 70% and 85.67% were found not vaccinated. Each of these 60 cases was cured without complications.

Keywords: Adult Measles Cases, Socio-demographic Profile.

I. INTRODUCTION

Measles is a highly contagious systemic viral infection that remains one of the most important causes of worldwide morbidity and mortality in children despite the availability of a safe and effective live attenuated virus vaccine.¹⁻³

Measles is an infectious disease caused by Morbillivirus, with a secondary attack rate in excess of 80%, that usually affects children.⁴ Although it is a disease of children but multiple outbreaks of measles have even been reported among adults.⁵⁻⁸ Measles is characterized by the presence of fever, cough, and coryza, followed by the appearance of a typical rashes.^{4,9} The disease is generally transmitted by the airborne route, with a large proportion of cases being self-limiting; nevertheless, multiple deaths have been reported because of disease-associated complications.^{4,5,9,10}

Complications of measles may includes primary measles encephalitis (PME)¹¹, acute disseminated encephalomyelitis (ADEM)¹², measles inclusion body encephalitis (MIBE)¹³, and sub acute sclerosing panencephalitis (SSPE).^{12,14}

So this study was conducted on records of adult measles cases attended at IDH of SMS Medical College, Jaipur in year 2018

II. METHODOLOGY

This record based descriptive study was conducted to study socio-demographic profile of adult measles cases attended in year 2018 at Isolation Disease Hospital (IDH) attached to Sawai Man Singh Medical College, Jaipur (Rajasthan) India.

Records of all adult measles cases attended in year 2018 at Isolation Disease Hospital (IDH) were observed and detail information given in patient information sheet of each case was noted down.

Statistical Analysis: These details were entered in Microsoft excel 2010 worksheet. Data were complied and infer with Microsoft excel 2010. Results were expressed in percentages.

III. RESULTS

In present study, out of total 60 adult measles cases attended in year 2018, 37 (61.67%) were male and 23 (38.33%) were females. Majority of cases were in 26 years to 45 years age group i.e. 68.33% followed by 16-25 years, 46-55 years and 55 to 65 years of age group. When significance of difference in sex wise distribution of cases as per age was analysed it was found without significant difference. (Table 1)

Table 1
Age and Sex wise distribution of Acute Gastroenteritis cases

S. No.	Age Group	Male	Females	Total	
				No.	%
1	16-25 Years	4	6	10	16.67
2	26-35 Years	12	6	18	30.00
3	36-45 Years	13	10	23	38.33
4	46-55 Years	6	1	7	11.67
5	56-65 Years	2	0	2	3.33
	Total	37	23	60	100.00

Chi-square = 5.389 with 4 degrees of freedom; P = 0.250 LS=NS

Out of 60 adult measles cases in year 2018, 47 (78.33%) were Hindu rest were Muslims. Likewise 34 (56.67%) were from rural areas and rest were from urban areas. (Figure 1 & 2)

Figure 1

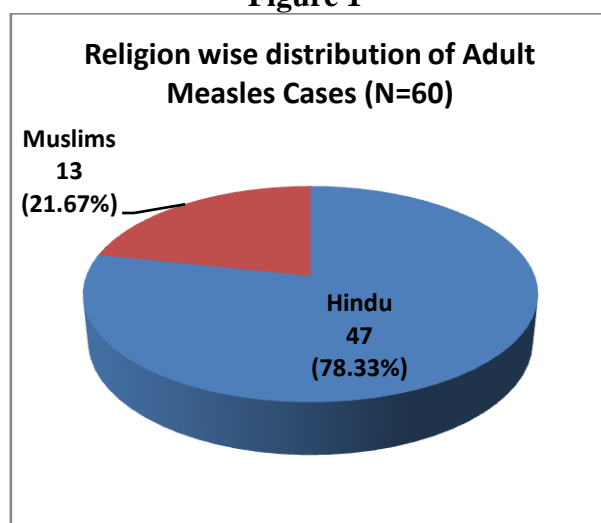
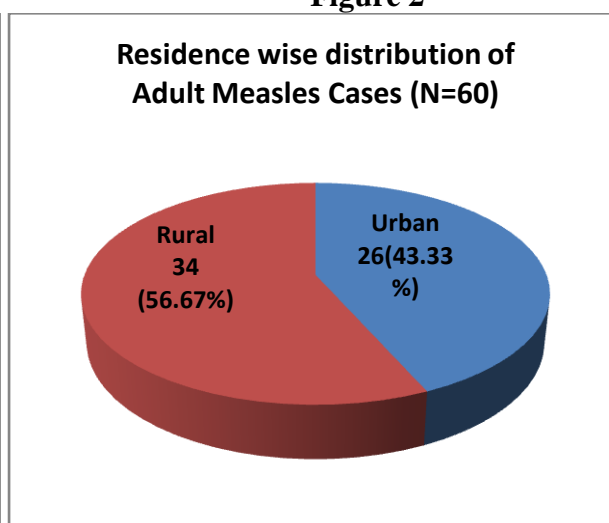


Figure 2



When history of epidemiological link and vaccination were inquired it was found that majority of cases were found epidemiological link and 85.67% were found not vaccinated. (Table 2)

Table 2
Epidemiological Link and Vaccination Status of Study population (N=60)

S. No.	Variables	Number	Percentage (%)
1	Epidemiological Link	Yes	42
		No	1
		Do Not Know	17
2	Vaccination	Yes	0
		No	51
		Do Not Know	8

Each of these 60 cases was cured without complications.

IV. DISCUSSION

In present study, majority of cases were in 26 years to 45 years age group i.e. 68.33% with male predominance. When significance of difference in sex wise distribution of cases as per age was analysed it was found without significant difference. In contrast to this usually it affects children⁴ but studies are there to support the observations of present study that it may found in adults.⁵⁻⁸ Another study found that the mean age of occurrence of disease was higher in the vaccinated group as compared to not vaccinated group.¹⁵

In this study majority (78.33%) of cases were Hindu rest were Muslims. Like wise 56.67% were from rural areas and rest were from urban areas. A critical evaluation of the current strategies and their implementation in the field suggests that poor coverage of measles or high case fatality rate can be attributed to various existing shortcomings or barriers. These barriers include sociodemographic parameters (e.g. higher birth order, low family income, lower parental education, Muslim religion, poor knowledge of measles and the measles vaccine, limited public demand for and confidence in vaccines, etc.); challenges faced by difficult-to-reach areas; inadequate infrastructure, manpower, and communication; faults in vaccine storage, transport, and cold chains; defective surveillance activities for reporting of adverse events following immunization and for outbreak response; and issues with the biomedical waste disposal system.^{7,16,17} It also in accordance to the findings of present study regarding religion and residence.

Present study also revealed that majority (70%) of cases were found epidemiological link and 85% were found not vaccinated. In a study conducted in Kerela, 32.72% cases were found epidemiologically linked. This higher proportion of epidemiologically linked cases in present study may be because of more awareness of cases as they reported to IDH.

Vaccination status of cases as 'not vaccination' in present study was also found higher than other studies.^{15,18,19} In the study conducted in Kerela, the cases that were immunized but developed the disease were 187 (28.6%), the number of cases that were not immunized was 355 (54.3%) and those whose immunization status was unknown were 112 (17.1%). Whereas it was 85.67% as not vaccinated and 13.33% did not know the status.¹⁵ This fact is supported with the observations of Indian District Level Health Survey-3 who reported that only 30% of vaccinated infants received the measles vaccine at the recommended age of 9 months.¹⁸ In a case-based measles surveillance in Pune, it was observed that, in approximately 40% of confirmed measles cases, the patient acquired the disease despite being immunized with one dose of measles vaccine.¹⁹

In was also found that each of these 60 cases was cured without complications in this present study. Studies also reported that measles is self-limiting; however, a number of severe outcomes have been

described. The risk of measles morbidity and mortality is multifactorial, depending on both vaccination and nutrition status; malnutrition and vitamin A deficiency are risk factors for severe outcomes.^{20,21}

V. CONCLUSION

Present study conclude that total 60 adult measles cases attended in year 2018. Males predominate over females. 68.33% of cases were in 26 years to 45 years age group. Sex wise distribution of cases as per age was not found with significant difference. 78.33% were Hindu rest were Muslims. Likewise 56.67% were from rural areas and rest were from urban areas. History of epidemiological link was found in 70% and 85.67% were found not vaccinated. Each of was cured without complications.

CONFLICT OF INTEREST

None declared till now.

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