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ORIGINAL ARTICLE

Frequency of Pneumonia in Children Less Than two years of age Presenting with Measles

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ABSTRACT

Aim: Frequency of pneumonia in children < 2 years of age presenting with measles.
Settings: Pediatric Department, Khyber Teaching Hospital, Peshawar.
Study design: Cross sectional study.
Study duration: 6 months from 24/7/2018 to 24/1/2019.
Methodology: In this study, a total of 131 patients observed. Children with clinical suspicion of measles were undergone a complete blood count and X-ray chest.
Results: In this study, mean age was 12 years with SD ± 2.16. Fifty five percent children were male while 45% children were female. 70% children had pneumonia and difference was statistically significant.
Conclusion: Frequency of pneumonia was 70% in children <2 years of age presenting with measles.
Keywords: Pneumonia, children, measles

INTRODUCTION

Measles is a public health problem mostly in underdeveloped countries where there is still no vaccination and thus measles has not been eradicated [1,2] There are approximately half a million people Infected every year worldwide. It is still a very deadly disease. In 2013, 145,700 causalities were reported in whole world. The children are mostly affected due to their poor immune system.[3]

Measles is characterized by fever, cough, malaise, coryza and conjunctivitis and rashes. Measles is a very contagious disease and approximately 90% of susceptible individuals who are exposed develop measles[4]. Measles can be diagnosed clinically if the patient has the typical symptoms with a history of exposure and there is no confusion with any other illness. But in doubtful cases, it can be diagnosed by IgM antibodies[5].

METHODOLOGY

This cross sectional study was conducted in Pediatric department Khyber teaching hospital MTI Peshawar for a period of six months from 24/7/2018 to 24/1/2019 after approval of Ethical Committee. Sample size was 131 calculated using WHO calculator. Sample technique used was consecutive non-probability sampling. Children of both gender <2 years of age and children presenting with clinical features of measles were included. Children with features of myocarditis (tachycardia, low volume pulses ,basal crepts, palpable liver, cardiomegaly on x ray chest and elevated cardiac enzymes) and children with features of bronchiolitis (nasal flaring, cough, wheeze, shortness of breath and hyperinflation on x-ray chest) were excluded.

Data collection procedure: Approval was taken from hospital ethical committee and written permission was obtained. All new cases with measles admitted to pediatrics unit, KTH were enrolled in the study. The written consent was taken from the parents. Children with clinical suspicion of measles were undergone a complete blood count and X-ray chest. All the collected data was entered and analyzed by SPSS software version 22.

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RESULTS

The detail of results is given in tables 1,2,3,4,5,6,7

Table 1: Age Distribution

Age	n=	%age
1-12 months	68	52%
13-24 months	63	48%
Total	131	100%

Mean age was 12 years with SD ± 2.16

Table 2: Gender Distribution

Gender	n=	%age
Male	72	55%
Female	59	45%
Total	131	100%

Table 3: Feeding Pattern

Feeding Pattern	n=	%age
Breast feeding	63	48%
Bottle feeding	43	33%
Mixed	25	19%
Total	131	100%

Table 4: Nutritional Status

Nutritional Status	n=	%age
Under weight	79	60%
Normal	46	35%
Over weight	6	5%
Total	131	100%

Table 5: Pneumonia

Pneumonia	n=	%age
Yes	92	70%
No	39	30%
Total	131	100%

Table 6: Stratification of pneumonia W.R.T age distribution

Pneumonia	1-12 months	13-24 months	Total
Yes	48	44	92
No	20	19	39
Total	68	63	131

Chi square test was applied in which P value was 0.9255

Table 7: Stratification Of Pneumonia W.R.T Gender Distribution

Pneumonia	Male	Female	Total
Yes	51	41	92
No	21`	18	39
Total	72	59	131

Chi square test was applied in which P value was 0.867

DISCUSSION

In this study, mean age was 12 years with SD ± 2.16. 55% children were male while 45% children were female. 70% children had pneumonia while 30% children didn't have pneumonia.

In one study conducted by Rashid MA et al[6] had reported that complications occur in almost 30% of all measles cases. The rate of complications increases in developing countries, where the case fatality rate may be from 4-10%. Pneumonia is the major complication accounting for 68% followed by diarrhea 31% and conjunctivitis in 21% patients.

In another study by Saleem AF et al[7] reported that the highest number of cases occurred in 2006 is 68(33.2%) and 2003 is 44(21.5%). Males accounted for 59% of cases. 59% of total patients were not vaccinated for measles. H/O prior exposure to measles cases was found in 8.2% cases and 29% of patients developed two or more complications simultaneously.

In a study by Sultana et al[8,] it is reported that the pneumonia was seen in 63.6% and 75% in children <2 years of age presenting with measles.

CONCLUSION

Frequency of pneumonia was 70% in children <2 years of age presenting with measles

Conflict of interest: Nil

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