



ISSN: 2277- 7695

TPI 2014; 3(10): 103-104

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www.thepharmajournal.com

Received: 16-10-2014

Accepted: 23-11-2014

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Efficacy of perinatal versus oral antibiotics in management of pneumonia in pediatric group

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Abstract

Aim: The present study was undertaken to observe and compare the efficacy of perinatal versus oral antibiotics in management of pneumonia in pediatric group.

Materials and Methods: The study recruited 100 children from 6 months age to 60 months age group and were diagnosed with severe pneumonia were included in the study. Demographic data and clinical data was obtained from the medical records department with prior permission from the authorities

Results: Table 1 presents the demographic data of patients. Table 2 presents the frequency and percentage of patients by treatment basis. Table no 3 presents the comparative table of treatment outcome in oral amoxicillin group versus Inj. Ampicillin plus Amikacin group. The both route of administration were found to be effective.

Conclusion: The study presents the details information about the comparison of route of administration of drug in management of pneumonia. It was found that both the routes were effective in the management. Further detailed studies are required.

Keywords: Pathology, culture, tuberculosis, drug resistant

Introduction

Pneumonia was considered as global health problem. The children with pneumonia usually reports cough, cold, chest pain and also fever. Pneumonia is most common disease that is observed in the pediatric group. It has to be diagnosed at the earliest and should be managed adequately [1]. Pharmacotherapy was found to be the best in the management of pneumonia. However, there are different opinions regarding the route of administration of the drug. There are few studies conducted in this area [2]. It was reported that perinatal administration was found to be more effective. In contrast other studies reported that oral administration was found to be effective [3]. The diagnosis has to be made at the earliest and the adequate treatment has to be offered. The quality of treatment is most important to prevent the progress of the disease. The present study was undertaken to observe and compare the efficacy of perinatal versus oral antibiotics in management of pneumonia in pediatric group.

Materials and Methods

Study design: Observational study

Sampling method: Convenient sampling

Study population: The study recruited 100 children from 6 months age to 60 months age group and were diagnosed with severe pneumonia were included in the study. Half of the children received oral medication and rest half received injection. Informed consent was obtained from the parents. Those with severe complications were also not included in the study.

Data collection: Demographic data and clinical data were obtained from the medical records department with prior permission from the authorities.

Ethical considerations: The study proposal was approved by the institutional ethics committee after satisfying the queries adequately. The study followed all the guidelines as per the ICMR guidelines. Written informed consent was obtained from all the participants before the commencement of the study. Information related to the patients was kept confidential.

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Data analysis: Data was analyzed using SPSS 20 software.

Results

Table 1 presents the demographic data of patients. Table 2 presents the frequency and percentage of patients by treatment basis. Table no 3 presents the comparative table of treatment outcome in oral amoxicillin group versus Inj. Ampicillin plus Amikacin group. The both route of administration were found to be effective.

Table 1: Frequency and percentage of patients by age basis

S. no	Age (months)	Number of patients (n=100)
1	6-12	25 (25)
2	13-24	26 (26)
3	25-36	24 (24)
4	37-48	10 (10)
5	49-60	15 (15)

Data was presented as frequency and percentage

Table 2: Frequency and percentage of patients by treatment basis

S. no	Age (months)	Oral amoxicillin (n=50)	Injection ampicillin plus amikacin (50)
1	6-12	10 (20)	15 (30)
2	13-24	16 (32)	10 (20)
3	25-36	14 (28)	10 (20)
4	37-48	6 (12)	4 (8)
5	49-60	5 (10)	10 (20)

Data was presented as frequency and percentage

Table 3: Comparative table of treatment outcome in oral amoxicillin group versus Inj. Ampicillin plus Amikacin group.

S.no	Age (months)	Oral amoxicillin (n=50) success	Injection ampicillin plus amikacin (50) success
1	6-12	7 (14)	8 (16)
2	13-24	8 (16)	10 (20)
3	25-36	6(12)	10 (20)
4	37-48	6 (12)	3 (6)
5	49-60	3 (6)	10 (20)

Data was presented as frequency and percentage

Discussion

The quality of treatment is most important to prevent the progress of the disease. The present study was undertaken to observe and compare the efficacy of perinatal versus oral antibiotics in management of pneumonia in pediatric group. Table 1 presents the demographic data of patients. Table 2 presents the frequency and percentage of patients by treatment basis. Table no 3 presents the comparative table of treatment outcome in oral amoxicillin group versus Inj. Ampicillin plus Amikacin group. The both route of administration were found to be effective. The study presents the details information about the comparison of route of administration of drug in management of pneumonia. It was found that both the routes were effective in the management. Further detailed studies are required. Earlier studies reported that the oral administration was better than then injection [4-6]. In contrast the other studies reported that the injection has better effect. Since, there is a strong debate in this area [7-9]. The current study results add to the literature that both the routes are equally effective and depending on the condition of the patient one can select the possible route of administration.

Conclusion

The study presents the details information about the comparison of route of administration of drug in management of pneumonia. It was found that both the routes were effective in the management. Further detailed studies are required.

Conflicts of interest: None declared

Source of funding: Self-funding

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