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Paediatrics

ROLE OF ZINC AS AN ADJUVANT THERAPY IN ACUTE PNEUMONIA IN CHILDREN OF AGE 2 MONTHS TO 2 YEARS.

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ABSTRACT **Introduction:** Pneumonia is the most common Illness affecting infants and children globally. Childhood pneumonia has been identified as the major "forgotten killer of children" by UNICEF and the WHO. The WHO and United Nations Children's Fund (UNICEF), in 2013, published the integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD), which outlined a framework for ending preventable child deaths due to diarrhoea and pneumonia by 2025. Zinc is a vital microelement that is essential for a variety of fundamental biological processes due to its function as a transition metal, cofactor, structural component, and signaling molecule. Zinc is also an essential component of antibacterial immunity. The impaired immunocompetence due to low zinc states enhances the establishment of a particular infection due to a reduction in the clearance of infectious agents. Recommended zinc nutritional intake is 10 mg to 20 mg per day for children.It is estimated that 17 to 20% of the world's population may be zinc-deficient . Zinc deficiency is common among children in developing countries because of inadequate food intake , particularly from animal source and limited bioavailability from local diet.It has been proposed that zinc can be a real potential in the prevention of pneumonia morbidity and mortality. **Materials And Methods: Study Design:** Hospital based randomised control study **Study Period:** 15 months, from January 2021 – March 2022. **Place Of Study:** Department of Paediatrics, Mamata General Hospital, Khammam. **Sample Size:** 50 pneumonia patients admitted to Mamata general hospital. **Results:** Out of the total 50 cases, two groups were divided with 25 cases in zinc group and 25 cases in non-zinc group. In zinc group 6 cases (50%) took 24-48 hours for disappearance of symptoms followed by 3 cases (26%), less than 24 hours in 1 case, time for disappearance of symptoms was 48-72 hours followed by another case which took 72-96 hours. The mean duration of time taken for disappearance of danger signs was 42.33 ± 13.89 hours. In the non-zinc group (36%), 5 cases took 24 – 48 hours for disappearance of danger signs followed by 3 cases (22%) which took 48-72 hours and 2 cases (14%) which took 96-120 hours, 2 cases (14%) which took 120-144 hours. The mean duration of hospital stay in non-zinc group was 62.28 ± 10.84 hours which is comparatively more than that of zinc group. **Conclusion:** This study concluded that zinc supplementation shortens the time taken for resolution of respiratory distress and resolution of symptoms. However, it was not found to be of much help in improving oxygen saturation. It also did not show any significant decrease in time taken for disappearance of danger signs and duration of hospital stay.

KEYWORDS :