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A SOCIO DEMOGRAPHIC STUDY TO EVALUATE THE KNOWLEDGE, AWARENESS, AND ATTITUDE OF PARENTS AND ADVERSE EVENTS ABOUT MR VACCINATION

Pharmacology

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ABSTRACT

Introduction: WHO has recommended Mass measles immunization campaigns with the main aim to control or eliminate measles. The objective of the campaign is to vaccinate children in the age group of nine months to 15 years with additional dose of the MR (measles and rubella) vaccine regardless of previous vaccination status. This data is helpful to evaluate coverage, knowledge, awareness and attitude of parents and adverse drug reactions with MR vaccination.

Methodology: This multicenter, prospective, non-comparative, non-interventional, observational study was conducted in Kolhapur. The data collected with a self-prepared, pre validated questionnaire feedback and information sheet from the parents came for Child's MR vaccination.

Results: There is no any significant difference between male and female beneficiaries. 86% parents having knowledge, awareness increased from 89.3% to 93% during this campaign as well as parents shown was positive attitude for vaccination.

KEYWORDS

Measles – Rubella (MR), Vaccination, Campaign, World Health Organization

INTRODUCTION:

World Health Organization (WHO) launched one of the world's largest vaccination campaign against measles, a major childhood killer disease, and congenital rubella syndrome (CRS), responsible for irreversible birth defects. The main aim of the campaign is to vaccinate more than 35 million children in the age group of nine months to 15 years with additional dose of the MR (measles and rubella) vaccine regardless of previous vaccination status or history of illness to improve health and well-being by protecting children against vaccine preventable diseases.[1]

WHO has recommended Mass measles immunization campaigns with the main aim to control or eliminate measles[1]. Such campaigns successfully accelerated measles control in the Americas[2,3] and Eastern Mediterranean and European countries.[4] Mass vaccination campaigns can rapidly reduce the proportion of susceptible people, and in some other countries, such as the United Kingdom,[5,6] Singapore[7], New Zealand[8] and Australia,[9,10] they prevented predicted outbreaks of measles.

According to the South-East Asia (SEA) Regional Committee resolution passed in September 2013, India has geared up with the goal for measles elimination and rubella / congenital rubella syndrome (CRS) control by 2020 and accelerated its key elimination strategies.

Our study data is helpful to find out how effectively immunization targets have met and reasons for denying vaccination in spite of various rumors, inadequate knowledge and improper awareness that led to phobia. The detected adverse drug reactions with MR vaccination are helpful to maintain and strengthen the universal immunization Programme.

METHODOLOGY:

This multicentered, prospective, non-comparative, non-interventional, observational study was conducted under D Y Patil Medical College and Research institute. Kolhapur. The data was collected from D Y Patil Hospital, Subcenters and Schools affiliated for MR vaccination as Immunization centers under D Y Patil group. The study was carried out in April 2019 to September 2109. A self-prepared, pre validated questionnaire feedback and information sheet was given to collect from the parents came for Child's immunization as well as all the parents of children who is studying in the school with age group below 15 years irrespective of MR vaccination. Informed consent will be taken before hand. The study was conducted after approval of Institutional Ethical Committee.

OBSERVATION & RESULTS:

Fig. 1-Gender Distribution Of Beneficiaries (N-680)

Fig. II- Age & Sex wise Distribution of Beneficiaries

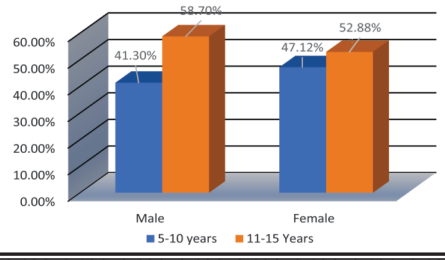


Fig III : Knowledge of Parents

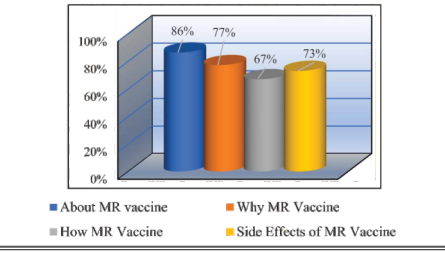
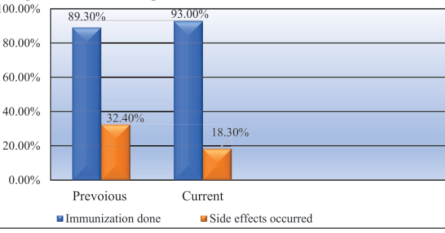


Fig IV: Awareness of parents & Prevalence of side effects



RESULTS & DISCUSSION:

Coverage of Immunization

Fig I show the coverage of vaccination and demographic characteristics of participants during the study. Total 680 parents of beneficiaries responded to the questionnaire and we found that about 45.88 % of the beneficiaries were female and 54.12 % were male. There is no any significant difference between male and female beneficiaries but there was a significant association between age of the child and MR vaccine administration which shows that younger the children, lesser the administration of MR vaccine as shown in Fig II. The study of Shuk Kwan Chuang et al[11] reveals that the highest coverage (90%) was achieved in the age group 6–11 years; this was significantly higher than that for the age groups 1–5 years (65%) and 12– 19 years (74%). In the study of M. Ricco et al.[12] 88.3% of subjects were favourable to vaccinations

Knowledge of Parents

Fig III depicts the knowledge of the parents about MR vaccination. During this we found that 86% parents admitted that they know the long form of MR and meaning of vaccination , 77 % know that it is given to prevent meseals and rubella like fatal conditions, 67 % acquired about the route of administration and precautions taken during administration while 73% know about the side effects of MR vaccination.

Awareness of Parents

Fig III revealed a data about awareness of parents regarding MR vaccination. Awareness increased from 89.3% to 93% during this campaign whereas side effects are reduced 32.4 % to 18.3%. Side effects were minimal and controllable like mild fever, rash or diarrhea and serious side effects are rare.

Attitude of Parents

Attitude of the parents for vaccination was positive but only after confirmation that precautions and safety measures are being taken as mass vaccination is parenteral. In the study of Ricco[12] total of 136 out of 154 respondents were “strongly favourable” or “somehow favourable” to vaccinations (88.3%) which is in general vaccination including all but numerically it is similar to our results.

Adverse events after immunization

Vaccine-induced reactions such as fever and skin rashes are usually mild, relatively common and temporary. Only one in every ten million vaccines causes adverse reactions like multiple sclerosis and subacute sclerosing panencephalitis.[13] in this study, not single reportable adverse event or deaths after immunization after immunization were reported. Mild adverse effects like pain at the site of injection, diarrhea or mild fever reported in 18.3 % cases which is very minimal. All reported cases of adverse events after immunization recovered after symptomatic treatment without any sequelae.

CONCLUSION:

There is no any significant difference between male and female beneficiaries. The knowledge and awareness increased during this campaign as well as parents shown was positive attitude for vaccination. But there is a need of study in wide population.

MR vaccine is a safe and effective vaccine; vaccine handlers and vaccinators must understand that most AEFIs are due to immunization errors and must be prevented at all costs; very rarely, MR vaccine can cause serious AEFI (e.g. anaphylaxis), which must be treated promptly using adrenaline followed by hydrocortisone;

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