

Evaluation of perspectives and approaches of primary health care physicians to the rotavirus vaccine

Habip Almis, Ibrahim Hakan Bucak

Adiyaman University, School of Medicine, Department of Pediatrics, Adiyaman, Turkey

Abstract

Aim: Rotavirus is the most common cause of severe gastroenteritis in children. Rotavirus diarrhea can lead to complications of rotavirus-induced severe diarrhea death resulting in electrolyte imbalance and dehydration. Rotavirus vaccination is the most effective method of preventing severe rotavirus infection. The purpose of this study was to evaluate the knowledge levels and attitudes of primary health care providers physicians related to rotavirus vaccine, which is one of the vaccines not yet added to the vaccination schedule in Turkey.

Materials and Methods: Physicians working in primary health care institutions in the province of Adiyaman in 2016 agreed to participate and were included in the study. The participants' demographic characteristics and data obtained from the questionnaire were analyzed using statistical methods on SPSS 22 software.

Results: 38 participants, 24 (63.2%) male and 14 (36.8%) female were included in the study. The number of primary health care physicians who thought that rotavirus vaccine was effective 24 (63.2%), while 10 (26.3%) stated that it was not effective and 4 (10.5%) had no opinion. Fifteen (39.5%) primary physicians thought that the rotavirus vaccine should be added to the routine vaccination schedule, 10 (26.3%) thought that it need not be added and 13 (34.2%) had no opinion.

Conclusion: Rotavirus vaccine is not a well-known that vaccine recommended among primary care physicians. This derives from lack of knowledge of the protective nature of the vaccine and inadequate awareness of it. We think that increasing physicians' knowledge of vaccines through in-service training will reduce negative attitudes against it concerning them.

Keywords: Rotavirus Vaccine; Physician; Education.

INTRODUCTION

Rotaviruses are the most common cause of severe diarrhea in young children. Rotavirus gastroenteritis is a clinical condition progressing with fever, vomiting and watery diarrhea. It represents a problem in both developed and developing countries. Rotavirus-related severe diarrhea can even lead to fatal complications as a result of electrolyte disorders and dehydration (1-3).

The most effective method of reducing the high disease burden in rotavirus disease is vaccination with safe and effective vaccines at an appropriate time. Two effective rotavirus vaccines widely used across the world are also licensed in Turkey. Rotavirus vaccinations are effective in lowering both mortality and the disease burden (4-6). The purpose of this study was to evaluate the attitudes and approaches toward rotavirus vaccination, which has not yet been added to the immunization schedule in Turkey, of physicians working in primary health institutions.

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Corresponding Author

Habip Almis, Adiyaman University, School of Medicine, Department of Pediatrics, Adiyaman, Turkey

E-mail: drhabipalmis@yahoo.com

MATERIALS and METHODS

Physicians working in primary health institutions in the province of Adiyaman in 2016 and giving consent to participate were included in this cross-sectional study. All the participants were practitioner. Participants were administered a questionnaire containing 10 questions drawn up by the authors. Physicians' demographic characteristics and data obtained from the questionnaire were analyzed using statistical techniques on SPSS 22 software. Ethical approval for the study was granted by the Adiyaman University Medical Faculty Clinical Research Ethical Committee.

RESULTS

Thirty-eight subjects aged between 25 and 62 years, 24 (63.2%) male and 14 (36.8%) female, were enrolled. The mean age of the primary care physicians enrolled was 37.58 ± 8.41 years.

Twenty-four primary care physicians (63.2%) thought that rotavirus vaccination is effective, 10 (26.3%) thought it is not effective and four (10.5%) were undecided. Asked about rotavirus vaccination recommendations in the previous year, 31 (81.6%) primary care physicians had not recommended rotavirus vaccination for any patient, one (2.6%) recommended it for one patient, two (5.3%) for two patients, one (2.6%) for four patients and

three (7.89%) primary care physicians for five patients each. Twenty-four of the 38 participants had recommended at least one rotavirus vaccination. Asked why they did not recommend rotavirus vaccination, 17 (44.7%) primary care physicians replied that it is expensive and 13 (34.2%) that they did not believe in its effectiveness. Eight (21.1%) primary care physicians stated that they lacked sufficient information regarding rotavirus vaccination.

The number of primary care physicians who had their own children vaccinated against rotavirus was low (three [7.89%]). Two physicians were unmarried, and five had no children. The number of subjects who had not had their own children vaccinated was 28 (73.68%) (Figure 1). Fifteen (39.47%) primary care physicians thought that rotavirus vaccination should be added to the routine immunization schedule, while 10 (26.32%) thought it should not be added and 13 (34.21%) were undecided (Figure 2).

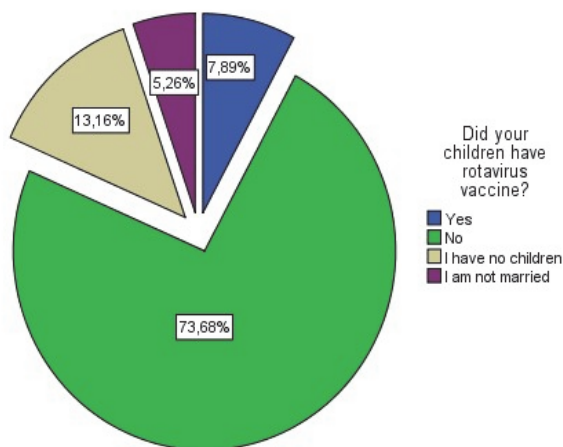


Figure 1. Levels of physicians having their children vaccinated against rotavirus

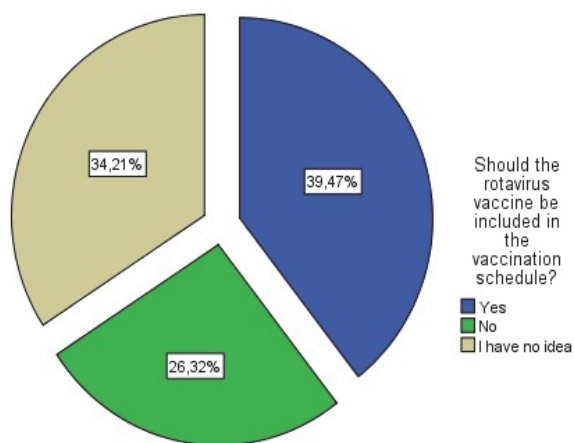


Figure 2. Opinions regarding the addition of rotavirus vaccination to the routine immunization schedule

Only three (7.89%) of the primary care physicians participating in our study thought that their levels of knowledge of rotavirus were sufficient, while 34 (89.47%)

considered their knowledge inadequate. One physician reported having no opinion (Figure 3).

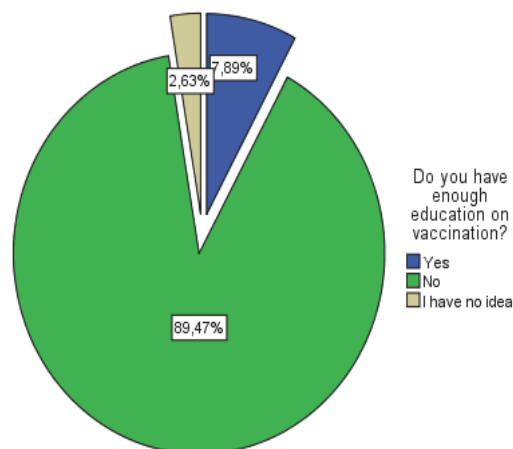


Figure 3 Level of knowledge about rotavirus vaccination

DISCUSSION

Rotavirus is one of the main causes of severe diarrhea in children under five in developed and developing countries worldwide. The infection is frequently characterized by severe diarrhea and dehydration in babies and infants aged 3-35 months. Rotavirus gastroenteritis is observed as an agent in 15-30% of patients presenting to hospital with diarrhea and in 50% of admitted cases. Rotavirus gastroenteritis is the cause of approximately 800,000 child deaths worldwide every year and of some 2.3 million children being hospitalized due to diarrhea (7). Rotavirus gastroenteritis is the cause of approximately 5-6% of child deaths under the age of five. Rotavirus is easily transmitted by touch, droplets or contaminated toys. Vaccination is the most effect method of protecting against rotavirus gastroenteritis (8).

In Turkey, although rotavirus vaccinations are not yet included in the national childhood immunization schedule, they are nevertheless part of an expanded childhood immunization schedule the fee for which can be met by families and/or private health insurance, if applicable (9). İlkaç et al. reported a relative decrease in the incidence of rotavirus infections in 2006–2010 and reported that this might be associated with the use of vaccination (10).

A study by O'Leary et al. in 2013 determined that 95% of pediatricians and 65% of family doctors recommended rotavirus vaccination (11). In our study, 19% of primary care physicians recommended rotavirus vaccination, and the majority did not recommend it.

In another study from Indonesia in 2015, Seale et al. interviewed three pediatricians, four primary care physicians, four midwives and three nurses in order to determine their levels of knowledge concerning rotavirus vaccination. Following these interviews, they determined quite low levels of knowledge on the part of midwives and nurses, while physicians mostly

recommended vaccinations to materially well-off families. They also reported that cost was the main obstacle to the use of rotavirus vaccination. That study also reported that 45% of pediatricians believed in the effectiveness of vaccination (12). In our study, a very low level of primary care physicians recommended rotavirus vaccination. Indeed, the majority of physicians had not had their own children vaccinated. While 44.7% of physicians reported not recommending rotavirus vaccination due to cost, 34.2% doubted its effectiveness. The majority of physicians (89.5%) reported having inadequate levels of knowledge concerning vaccination.

In conclusion, rotavirus gastroenteritis remains a significant health problem in Turkey. Rotavirus vaccination is the most effective method of protection, but it is not yet included in the routine immunization schedule. Rotavirus vaccination is not well known and recommended among primary care physicians. This derives from lack of knowledge of the protective nature of the vaccine and inadequate raising of awareness. We think that increasing physicians' levels of knowledge through in-service training seminars will reduce skepticism on the subject of vaccination and encourage its use.

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