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Original Article

The Effect of Age Group less than 15 Years Old on Cholera Morbidity during the Past 10 Years in Iran (1996-2005)

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Abstract:

Objective: The study of the effect of age, especially children under 15 years old, on cholera morbidity during a period of ten years (1996-2005) was carried out in Iran. There are no more studies about this topic in Iran and other countries.

Methods: In this cross sectional study, we used cholera surveillance data collected in Center for Disease Control. The total population and reports confirmed that the cholera cases were divided to two group: under 15 years old and above 15 years old groups. Incidence rate of cholera per 100000 was calculated in total population and two mentioned groups during 10 years, respectively. By EPI6 and SPSS software the relative risk of under 15 years old groups to above 15 years old were calculated with %95 CI for 10 years.

Findings: The trend of cholera incidence during the past 10 years showed two epidemic peaks in 1998 and 2005 by the rate of 15.7 and 1.63 per 100000, respectively. During the year with no epidemic and the years between two peaks, the age group under 15 years old was more affected with significant relative risk. For example, in 2001 this rate was 4.53. So, we can consider this age group as a risk factor to cholera morbidity. The age group of above 15 years old were more affected to cholera during epidemic years (1998, 2005) and relative risk were less than one. So, the age was protective on cholera morbidity for children in these years.

Conclusion: One of the most important causes of periodic cholera epidemics every 5-6 years is changing of herd immunity. During the years between two epidemics the adult have sufficient immunity and children are more affected because of first time of exposure and less immunity. By reducing in herd immunity epidemics occurs. We recommend the continuing and strengthening of cholera surveillance system for detection of epidemics and treatment of highly sensitive age groups.

Keywords:

[Cholera](#) . [Iran](#) . [Age group](#) . [Children](#) . [Diarrhea](#)

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