

Abstract

Acute Gastroenteritis Outbreak in Union Council Khirzan, District Khuzdar Pakistan - 2017

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Abstract

Background: On 30th June 2017, district Health Officer (DHO) Khuzdar reported 60 suspected cases of acute gastroenteritis from union council Khirzan 2 days after heavy rains and flood in the area. DHO requested Provincial Disease surveillance and response Unit for investigation.

Objective: On 1st July 2017 a team was deputed to confirm outbreak, evaluate risk factors and recommend control measures.

Methods: A case was defined as sudden onset of 3 or more episodes of loose stools per day with or without vomiting in a resident of UC Khirzan District Khuzdar from 28th June to 4th July 2017. Active case finding was done in affected village and records of Rural Health Center were reviewed. A case control study was conducted. Age and sex matched controls were enrolled in a ratio of 1:1. Water sources and toilet facilities were assessed. Three water samples from water stream and household wells were taken and sent to NIH Islamabad.

Results: A total of 105 cases were identified with an overall attack rate of 1.08%. No deaths were recorded. Mean age was 27 years (range = 1 to 70 years). Males were more affected n=54 (51%). Most affected age group was 0-4 years (n=29, 27.6%) with attack rate 0.3%. Dehydration (n=95, 94%), nausea (n=80, 76.1%) and vomiting (n=70, 66.6%) were most frequent symptoms. About 95% of people practiced open defecation. About 78% of cases used stream water (OR= 11.40, 95% CI: 5.98-21.73) while 22% used well water (OR= 0.087, 95% CI: 0.046-0.167). Lab results showed coliform and fecal coliform organisms in stream water sample.

Conclusions: The most probable cause of outbreak was fecal contamination of stream water after floods. On recommendations of this study, community started boiling water before use and local authorities also distributed chlorine tablets for disinfecting water along with awareness regarding usage of latrines.

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