

Intussusception after rotavirus vaccines implementation in Côte d'Ivoire: epidemiology, diagnosis and outcomes

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Introduction

Intussusception is a rare event that occurs when one segment of the bowel telescopes into another, which results in obstruction. Rotavirus vaccine protects against Rotavirus diarrhoea, the most common cause of diarrhoea and severe dehydration in children worldwide. Several observational studies have shown that these rotavirus vaccines are associated with a small increased risk of intussusception. As of March 2017, due to the benefit of rotavirus vaccination, we have introduced rotavirus vaccines into Ivorian national immunization programs. WHO now advises to monitor intussusception following the introduction of RV vaccine in a new population.

Objective: to describe the epidemiological, diagnostic and outcomes characteristics of infants with intussusception after rotavirus vaccine introduction.

Methods

Using active surveillance, from March 2017 to April 2019 throughout the national Ivorian territory. We enrolled patients who had intussusception that met international (Brighton Collaboration level 1) criteria. Rotavirus vaccination status was confirmed or not by review of the vaccine card or clinic records. We also review the epidemiology, diagnosis aspects and outcomes.

Results

Data on 45 infants who had intussusception were analyzed. The sex ratio was 1.64. The number (%) of cases with card confirmed rotavirus vaccination status was 80%. The Number of cases <8 months of age at enrollment was 23. Of the above, the number successfully conducted follow-up interviews at 8 months of age was 11. Number of follow-up visits that need to be completed for children who are not fully vaccinated was 09 (3 deaths). The average delay in diagnosis was 4.5 days [1-15j]. Intestinal resection was performed in 42.22% (n = 19). No infant presented a second episode of intussusception. The mortality rate was 13.33%.

Conclusion

Intussusception surveillance should continue. Early consultation would reduce mortality. Further studies are necessary to determine any association between vaccine and intussusception.

Key words: invagination, rotavirus, vaccine.