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A Study of Interspecies Transmission and Reassortment Events in Rotaviruses from Cattle in Pant Nagar, Uttarakhand, India

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ABSTRACT Most cases of severe acute gastroenteritis (AGE) in neonates and cattle are caused by Group A Rotavirus (RV). Faecal samples were obtained from 150 calves from dairy farms in Pant Nagar, Uttarakhand, India, for the current investigation. RNA-PAGE analysis was used to test them all. In this investigation, amplicons based on the VP6 gene (227 bp) and the VP7 gene (208 bp) were utilised to identify Group A rotaviruses in the positive samples. There is a growing amount of evidence demonstrating that reassortment and transmitting between different species of Rotavirus (RV) occur in the natural world. Recognising RV dynamics and the methods by which RVs develop, pass the species barrier, transfer genes during reassortment, and evolve through point mutations or recombinant genetics requires an examination of the dominance of rotavirus G and P types in human and bovine communities.