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**Educational Abstract**

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**Enterovirus Rhombencephalitis – A Case of Notifiable Disease in Hong Kong with Specific MRI Features**

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**Learning Objective**

To illustrate the radiological features of a case of enterovirus rhombencephalitis with typical clinical presentation.

**Background**

Enterovirus 71 infection is a notifiable disease in Hong Kong. The disease is common among pediatric patients. It can have various disease manifestations including hand-foot-mouth disease, respiratory infection and aseptic meningitis. One of the uncommon and potentially fatal disease manifestations is enterovirus rhombencephalitis, which essentially means inflammatory condition affecting hindbrain.

**Findings**

Our case illustrates an 11-year-old boy who had good past health presented with fever and coryzal symptoms. After a while, he developed carpopedal spasm, hyperventilation, neck pain and headache. Later, the patient was found to suffer from acute bilateral upper limb flaccid paralysis. Urgent CT brain showed no space occupying lesion, abnormal parenchymal attenuation or intracranial hemorrhage. Urgent MRI revealed T1 hypointensity and T2 hyperintensity at posterior aspect of midbrain, pontine tegmentum and posterior aspect of medulla. No restricted diffusion is seen at these regions. Features are suggestive of rhombencephalitis. MRI of cervical spine shows long segment T2 hyperintensity at central grey matter of cervical cord, with cord expansion of cervical cord, giving the characteristic "H-shape appearance" on axial T2W images. Rectal swab and throat swab of patients came back showing presence of enterovirus 71. Diagnosis of enterovirus rhombencephalitis was confirmed. Patient was treated with pulse steroid and recovered afterwards.

**Conclusion**

Diagnosis of enterovirus encephalitis can be made with conjoint evidence from clinical presentation, neuroradiological features and detection of the virus as illustrated in this case.