

**Incidence of Picornaviruses among  
Children with Respiratory Tract Infections  
Attending Ain Shams Pediatric University  
Hospital  
Thesis**

*Submitted for Partial Fulfillment of M.D. Degree in  
Medical microbiology & immunology*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# قالوا

لَسْبَحَانَكَ لَا عِلْمَ لَنَا  
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

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## List of Abbreviations

<b>AOM</b>	: Acute otitis media
<b>ARTIs</b>	: Acute respiratory tract infections
<b>COPD</b>	: Chronic obstructive pulmonary disease
<b>CPE</b>	: Cytopathic effect
<b>cre</b>	: cis-acting replication element
<b>CSF</b>	: Cerebrospinal fluid
<b>CV-B</b>	: Coxsackie B viruses
<b>DAF</b>	: Decay accelerating factor
<b>DFA</b>	: Direct immunofluorescence
<b>DFA</b>	: direct fluorescent assay
<b>E</b>	: Echoviruses
<b>ELISA</b>	: Enzyme-linked immunosorbent assay
<b>EV</b>	: Enteroviruses
<b>EV D 68</b>	: Enterovirus D68
<b>FMDV</b>	: Foot mouth disease virus
<b>FRET</b>	: Fluorescent resonance energy transfer
<b>HAV</b>	: Hepatitis A virus
<b>HFMD</b>	: Hand-foot-and-mouth disease
<b>HPeV-1</b>	: Human parechovirus 1
<b>HPeV-2</b>	: Human parechovirus 2
<b>HPEVS</b>	: Human parecho virus
<b>HRVs</b>	: Human rhinoviruses

<b>IFA</b>	: Indirect fluorescent assay
<b>IRES</b>	: Internal Ribosomal Entry Site
<b>LFIC</b>	: Lateral flow immunochromatography
<b>LRTIs</b>	: Lower-respiratory-tract infections
<b>NPS</b>	: Nasopharyngeal Swab
<b>PCR</b>	: Polymerase chain reaction
<b>PV</b>	: Polioviruses
<b>PVs</b>	: Polioviruses
<b>RNA</b>	: Ribonucleic acid
<b>RV</b>	: Rhino virus
<b>SiRNA</b>	: Small Interfering RNA
<b>VP1</b>	: Viral protein 1
<b>VPg</b>	: Viral protein genome-linked
<b>WPV</b>	: Wild-type polioviruses



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# Introduction

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# Aim of the work

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# Review of literature

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# Materials & Methods

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