

REFERENCES

Abbassy, A.S. (1981) :

Diarrheal disorders in : Abbassy pediatrics 3 rd. ed. Dar EL- Maaref, Alex
Egypt. P. 150.

**Abou- El- Naga, M., Awaad, S., Khalifa, A.S., Mayeg, O., and Abdel Wahaab,
S. (1975) :**

A field survey on child health in rural community in Egypt.
J. Trop. Med. Hyg., 1: 78- 80.

A dams, W.R., and Kraft, L.M. (1963) :

Epizootic diarrhea of infant mice : Identification of the etiologic agent.
Science, 141 ; 359- 360.

Albert, M.J., Unicomb, L.E., Tzipori, S.R., Bishop, R.F. (1987) :

Isolation and serotyping of animal rotaviruses and antigenic composition
with human rotavirus.
Arch. Virol., 93 : 123-130.

Albery, M.B., and Murphy, A.M (1976) :

Rotavirus and acute gastroenteritis of infants and children.
Med. J. Aust., 1:82.

**Almida, J.D., Hall, T., Banatvala, J.E., Totterdell, B.M., and Chrystie, I.L.
(1978) :**

The effect of trypsin on the growth of rotavirus.
J. Gen. Virol., 40 : 213.

AL- Nakib, W., Chrystie, I.L., Banatvala, J.E., and Al- Sayegh, F. (1980) :

Rotavirus and non- bacterial infantile gastroenteritis in Kuwait.
Int. J. Epidemiol., 9 : 355

Babiuk, L.A., Mohamed, K., Spence, L., Fauvel, M., and Petro, R. (1977) :

Rotavirus isolation and cultivation in the presence of trypsin.
J. Clin. Microbiol., 6 : 610.

Banatvala, J.E., Totterdel, B., Chrystie, I.L., and Woode, G.N. (1975) :

In vitro detection of human rotaviruses. (letter)

Lancet, 1 :821

Barker, R.A., Maxwell, P.H., Hong, C.P., Codery, M.C., and Chrystie, I.L. (1988) :

Pediatric gastroenteritis in the Eastern Malaysian State of Sarwak : An epidemiological and clinical study.

Tran. R. Soc. Trop. Med. Hyg., 82 :898-901.

Beards, G. M., Pilfoed, J.N., Thouless, M.E., Flewett, T.H., (1980) :

Rotavirus Serotypes by neutralization.

J. Med. Virol., 5 : 231-237.

Beards, G.M., Desselberger, U., and Flewett, T.H., (1989) :

Temporal and geographical distribution of human rotavirus serotypes.

J. Clin. Microbiol. 27(12) : 2827- 2833.

Bell, L.M., Clark, H.F., Offit, P.A., Arbeter, A.M., and Plotkin, S.A., (1988) :

Rotavirus serotype- specific neutralizing activity in human milk.

Am. J. Dis. Child., 142 : 275- 278.

Bellinzoni, R.B., Mattion, N.M., Matson, D.O., Blackhall, J., La Torre, J.L. (1990) :

Porcine rotaviruses antigenically related to human rotavirus serotypes 1 and 2.

J. Clin. Microbiol., 28(3) : 633- 636.

Bendall, R.P., and Gray, J.J. (1991) :

Haemorrhagic colitis and haemolytic- uraemic Syndrome : false positive reaction with rotavirus latex agglutination test.

J. Clin. Pathol., 44 : 609- 610.

Berger, S.L. (1987) :

Quantifying P. labeled and unlabeled nucleic acids.

Methods Enzymol., 152:49-54.

Bhan, M. K., Kumar, R., Khoshoo, V., Arora, N.K., Raj, P., Stintzing, G., Sood, D., and Srivastava, R. (1987) :

Etiologic role of enterotoxigenic *Escherichia coli* and rotavirus in acute diarrhea in Delhi children. *Indian*

J. Med. Res., 85 : 604- 607.

Bhat, P., Macaden, R., Unnykrishanan, P., and Rao, H.G.V., (1985) :

Rotavirus and bacterial enteropathogens in acute diarrheas of young children in Bangalore.

Indian J. Med. Res., 82 :105.

Bican, P., Cohen, J., Charpilienne, A., and Scherrer, R. (1982) :

Purification and characterization of bovine rotavirus cores.

J. Virol., 43 : 1113.

Bingren, W.U., Mahony, J.B., Gerard, S., and Charnesky, M.A. (1990) :

Sensitive solid- phase immune electron microscopy double- antibody technique with gold- immunoglobulin G complex for detecting rotavirus in cell culture and feces.

J. Clin. Microbiol. 28 : 864- 868.

Birch, C.J., Rodger, S.M., Marshall, J.A., and Gust, I-D. (1983) :

Replication of human rotavirus in cell culture.

J. Med. Virol., 11: 241-250.

Bishop, R.F., Davidson, G.P., Holmes, I.H., Ruck B.J., (1973) :

Virus particles in epithelial cells of duodenal mucosa from children with viral gastroenteritis.

Lancet, 2 : 1281- 1283.

Bishop, R.F., Davidson, G.P., Holmes, I.H., and Ruck, B.J. (1974) :

Detection of a new virus by E.M. of fecal extracts from children with acute gastroenteritis.

Lancet, 1 : 149-151.

Bishop, R.F., Hewstone, A.S., Davidson, G.P., Townley, R.R.W.T., Holmes I.H., and Ruck, B.J. (1976):

The etiology of diarrhea in new born infants.

J. Clin. Pathol., 29 : 46-49.

Bishop, R.F., Unicomb, Z.E., Soenarto, Y., Suwardji, H., Ristant, O., and Barnes G.L. (1989) :

Rotavirus Serotypes causing acute diarrhea in hospitalized children in Yogyakarta, Indonesia during 1978- 1979.

Arch. Virol., 107 : 207- 213.

Black, R.E., Merson, M.H., Mizanur, Rahman, A.S.M., Yunus, M., Alim, A.R.M.A., Huq, I., Yolken, R.H., and Curlin, G.T., (1980) :

A 2 year study of bacterial, viral and parasitic agents associated with diarrhea in rural Bangladesh.

J. Infect. Dis., 142 : 660.

Black, R.E., Merson, M.H., Huq., I., Alim, A.R.M.A., and Yunus, M. (1981) :

Incidence and severity of rotavirus and Escherichia coli diarrhea in rural Bangladesh.

Lancet, 17 : 141-143.

Black, R.E., Greenberg, H.B., Kapikian, A.Z., and Becker, S., (1982) :

Acquisition of serum antibody to Norwalk virus and rotavirus and relation to diarrhea in a longitudinal study of young children in rural Bangladesh.

J. Infect. Dis., 145: 483.

Blacklow, N.R., Echeverria, P., and Smith, D. H., (1976) :

Serological studies with rotavirus like enteritis agent.

Infect. Immun., 13 : 1563.

Blacklow, N.R., and Cukar, G., (1981) :

Viral gastroenteritis.

N. Engl. J. Med., 78 : 10-78.

Bohl, E.H., Theil, K.W., and Saif, L.J., (1984) :

Isolation and Serotyping of porcine rotaviruses and antigenic comparison with other rotaviruses.

J.Clin. Microbiol., 19 : 105- 111.

Boyle, J. F., and Holmes, K.V., (1986) :

RNA- binding proteins of bovine rotavirus.

J. Virol., 58 : 561- 668.

Brandt, C.D., Kim, H.W., Yolken, R.H., Kapikian, A.Z., Wyatt, R.G., and

Parrott R.H., (1979) :

Comparative epidemiology of two rotavirus serotypes and other viral agents associated with pediatric gastroenteritis.

Am. J. Epidem., 110 :243.

Brandt, C.D., Kim, H.W., Rodriguez, W.J., et al., (1981) :

Comparison of direct electron microscopy, immune electron microscopy, and rotavirus enzyme- linked- immunosorbent assay for detection of gastroenteritis viruses in children.

J. Clin. Microbiol., 13 : 976- 981.

Brandt, C.D., Kim, H.W., Bodriguez, W.J., Arrobio, J.O., Jeffries, B., Stalling

E.P., Lewis C., Miles, A.J., Chanock, R.M., Kapikian, A.Z., and

Parrott, R.H., (1983) :

Pediatric viral gastroenteritis during eight years of study.

J. Clin. Microbiol., 18: 71.

Brooks, R.G.L., Brown and Franklin, R.B., (1989) :

Comparison of a new rapid test (Test Pack Rotavirus) with standard enzyme immunoassay and electron microscopy for the detection of rotavirus in symptomatic hospitalized children.

J. Clin. Microbiol., 27 : 775- 777.

Brown, K.H., Gilman, R.H., Gaffar, A., et al., (1981) :

Infections associated with sever protein- calorie malnutrition in hospitalized infants and children.

Nutr. Res., 1: 33-36.

Brown, D.W., Mathan, M.M., Mathew, M., Martin, R., Beards, G.M., and Mathan, V.I. (1988) :

Rotavirus epidemiology in Vellore, South India : group, subgroup, serotype and electropherotype.

J. Clin. Microbiol., 26 : 2410- 2414.

Brussow, H., Sidoti, J., Barclay, D., Sotek, J., Dirren, H., Freire, W.B.(1990) :

Prevalence and serotype specificity of rotavirus antibodies in different age group of Ecuadorian infants.

J. Infect. Dis., 162 : 615- 620.

Brussow, H., Nakagomi, O., Gerna, G., and Eichhorn, W., (1992) :

Isolation of an avian like group A rotavirus from a calf with diarrhea.

J., Clin. Micro biol., 30(1): 67-73.

Bryden, A.S., Davies, H. A., Thouless, M.E., and Flewett, T.H., (1977) :

Diagnosis of rotavirus infection by cell culture.

J. Med. Microbiol., 10 : 121-125.

Burns, J.W., Greenberg, H.B., Shaw, R.D., and Estes, M.K., (1988) :

Functional and topographical analysis of epitopes in the hemagglutinin (VP4) of the simian rotavirus SA-11.

J. Virol., 62 : 2104- 2172.

Champsaur, H., Questiaux, E., Preuot, J., Hernry- Amar, M., Goldszmidt, D., Bourjouare, M., and Back, G., (1984) :

Rotavirus carriage, asymptomatic infection and disease in the first two years of life.

J. Infect. Dis., 149: 667-682.

Chatterjee, B.B., Thawani, G., and Sanyal, S.M., (1989) :

Etiology of acute diarrhea in calcutta.

Trop. Gastroenterol., 10 : 158-166.

Chernesky, M., Castriciano, S., Mahony, J., and De Long, D., (1985) :

Examination of the rotazyme II enzyme immunoassay for the diagnosis of rotavirus gastroenteritis.

J. Clin. Microbiol., 22(3) : 462-464.

Chernesky, M., Castriciano, S., Mahony, J., Spiewak, M., and Schaefer, L., (1988) :

Ability of TEST PACK ROTAVIRUS enzyme immunoassay to diagnose rotavirus gastroenteritis.

J. Clin. Microbiol., 26 : 2459- 2461.

Chrystie, I.L., Totterdell, B., Bader, M.J., Scopes, J.W., and Banatvala, J.E., (1978) :

Asymptomatic endemic rotavirus infection in the newborn.

Lancet, 1 : 1176- 1178.

Chudzio, T., Kasatiya, S., Irvine, N., and Sankar- Mistry, P., (1989) :

Rapid Screening test for the diagnosis of rotavirus infection.

J. Clin. Microbiol., 27 : 2394- 2396.

Clementi, M., Pauri, P., Bagnarelli, P., Carloni, G., and Calegari, L., (1981) :

Diagnosis of human rotavirus infection, comparison of an electrophoretic method, a modified C.F. test and E.M. for rotavirus detection.

Arch Virol., 67 : 341.

Cook, S.M., Glass, R.I., Le Baron C.W., and Ho, M.S., (1990) :

Global Seasonality of rotavirus infections.
Bull. World Health Organ., 68 : 171 : 177.

Corthier, G., and Franz, J., (1981) :

Detection of anti- rotavirus immunoglobulins A, G, and M in colostrum, milk and feces by Enzyme- linked- immunosorbent assay.
Infect. Immunol., 31 : 833.

Cruickshank R., Duguid, J.P., Marmion, B.P., and Swain, R.H.A., (1982) :

Tests for identification of bacteria. In : Medical Microbiology, 12 th edition, Vol. II, P: 170- 189. Churchill Livingston. Edinburgh. London.

Cukor, G., Blacklow, N.R., Capazza, F.E., Panjvani, Z.F.K., and Bendarek, E., (1979) :

Persistence of antibodies to rotavirus in human milk.
J. Clin. Microbiol., 12: 90-93.

Cynthia, C., Diane, V., and Paul, M., (1990) :

Comparison of three enzyme immunoassays to tissue culture for the diagnosis of rotavirus gastroenteritis in infants and young Children.
J. Clin. Microbiol., 29 : 1428- 1430.

Davidson, G.P., Bishop, R.F., Townley, R.R.W., Holmes, I.H., and Ruck, B.J., (1975 a) :

Importance of a new virus in acute sporadic enteritis in children.
Lancet, 1 : 242-245.

Davidson, G.P., Bishop, R.F., Townley, R.R.W., Goller, I., and Ruck, B.J., (1975 b) :

Immunofluorescence in duodenal mucosa of children with acute enteritis due to a new virus.
J. Clin. Poth., 28 : 263.

Davidson, G.P., Gall, D.B., Petric, M., Butler, D.G., and Hamilton, J.R., (1977) :

Human rotavirus enteritis induced in conventional Piglets.

J.Clin. Invest., 60 : 1402-1409.

Delage, G., Band, M., and Bertiaumel, (1978) :

A clinical study of rotavirus gastroenteritis.

J. Pediatr., 93 : 455- 457.

Delem, A., and Vesikari, T., (1987) :

Detection of serum antibody responses to rotavirus vaccine by ELISA and neutralization assays.

J.Med. Virol., 21 :231- 238.

Dennehy, P.H., Gauntlett, D.R., and Tente, W.E., (1988) :

Comparison of nine commercial immunoassays for detection of rotavirus in fecal specimens.

J. Clin. Microbiol., 62 : 1630- 1634.

Dennehy, P.H., Gauntlett, D. R., and Spangenberger, S. E., (1990) :

Choice of reference assay for the detection of rotavirus in fecal specimens :

Electron microscopy versus enzyme immunoassay.

J. Clin. Microbiol., 28 (6) : 1280- 1283.

Derrick, K.S., (1973) :

Quantitative assay for plant virus using serologically specific electron microscopy.

J. Clin. Microbiol., 26 : 2459- 2461.

Doern, G.V., Herrmann, J.E., Henderson, P., Stobbs- Walro, D., Perron, D. M., Blacklow, N.R., (1986) :

Detection of rotavirus with a new polyclonal antibody enzyme immunoassay (Rotazyme II) and a commercial latex agglutination test (Rotalex) : Comparison with a monoclonal antibody enzyme immunoassay.
J. Clin. Microbiol., 23 : 226- 229.

Dolin, R., Blacklow, N.R., Wyatt, R. G., and Sereno, M.M., (1972) :

Detection and localization of viruses in tissue culture by immunofluorescence.
Infect. Immun., 6 : 958- 964.

Dowe, G., King, S.D., Maitland, P.B., and Swaby- Ellis, D.E., (1988) :

Laboratory investigation on rotavirus in infantile gastroenteritis in Jamaica.
Trans. R. Soc. Trop. Med. Hyg., 82 ; 155-159.

Dupont, H.L. (1984) :

Rotavirus gastroenteritis, some recent developments.
Infect. Dis., 149 : 663-666.

Echeverria, P., Blacklow, N. R., and Smith, D. H., (1975) :

Role of heat- labile toxogenic *Escherichia coli* and reovirus- like agent in diarrhea in Boston children.
Lancet, 2 : 1113- 1116.

Echeverria, P., Ho, M. T., Blacklow, N.R., Quinnan, C., Portoy, B., Oeson, J.G., Conklin, R., DuPont, H.L., and Cross, J. H., (1977) ;

Relative importance of virus and bacteria in the etiology of pediatric diarrhea in Taiwan.
J. Infect. Dis., 136 : 383- 390.

Eiden, J., Sato, S., and Yolken, R., (1987) :

Specificity of dot hybridization assay in the presence of r RNA for detection of rotaviruses in clinical specimens.

J. Clin. Microbiol., 25 : 1809- 1811.

Elias, M.M., (1977 a) :

Separation and infectivity of two particle types of human rotavirus.

J. Gen. Virol., 37 : 191- 194.

Elias, M.M., (1977 b) :

Distribution and titres of rotavirus antibodies in different age group.

J. Hyg. Comb., 79 : 373.

El. Kholy, A.M., (1988) :

The Prevalence of rotavirus in infants and young children with acute gastroenteritis in Dakahlia governorate. Microbiology, Mansura University.

M. D. of Microbiology.

El-Mougi, M., El-Hadi Emam, M., El-Geindy, Abde El-Salam and Abdy Amer (1985) :

Pattern of diarrheal disease in the DDRRC Bab El-Shareya hospital 1983-1984. A two year experience. Diarrhea Control Newsletter, No. (4).

El- Shafei, M.M., and El- Dakhakhni, M.Y., (1986) :

Rotavirus diarrhea in a sample of Makkah Pilgrims.

J. Egyptian Med. Assoc. 69 : 297-301.

Estes, M. K., Graham, D. Y., Smith, E.M., Gerba, C.P., (1979) :

Rotavirus stability and inactivation.

J. Gen. Virol., 43: 403- 409.

Estes, M.K., Graham, D.Y., Mason, B.B. (1981) :

Proteolytic enhancement of rotavirus infectivity : molecular mechanisms.

J. Virol., 39 : 879- 888.

Estes, M.K., Palmer, E.L., and Obijeski, J.F., (1983) :

Rotaviruses : A Review.

Curr. Trop. Microbiol. Immunol., 105 : 123-184.

Estes, M.K., Crawford, S.E., & Penaranda, M.E., (1987) :

Synthesis and immunogenicity of the rotavirus major capsid antigen using a baculovirus expression system.

J. Virol., 61 : 1488-1494.

Fathy, Z.M., (1988) :

A survey of rotavirus infection of young children in Sharkia governorate.

Microbiology, Zagazig University. M.D. of Microbiology.

Fanaroff, A., and Martin, R.J., (1983) :

Infectious diarrhea in Behrmas neonatal perinatal medicine. 11th. ed.

Mosby, St. Lawis- Toronto- London, 523- 424.

Fayram, S.L., Planta, F., Aarnaes, S.L., Peterson, E.M., and De La Maza, L.M., (1987) :

Rotavirus gastroenteritis in Southern California.

Diag. Microbiol. Infect. Dis., 7 : 59- 62.

Fenner, F., and White, D.O., (1976) :

Adenovirus : In Medical Virology. 2nd . ed. Academic Press. New York, Sanfrancisco, London. P.P. 289- 295.

Ferrh, S.R., Gayal, S.M., Gebra, C.P., Conklin, R.H., and Smith, E.M.,(1978):

Comparison between adsorption of poliovirus and rotavirus by alumunium hydroxide and activated sludge flocs.

Appl. Environ. Microbiol., 35 : 360-363.

Flewett, T.H., Bryden, A.S., and Davies, H., (1973) :

Virus particles in gastroenteritis.

Lancet, 2 :1497.

- Flewett, T.H., Bryden, A.S., Davis, H., Woode, G.N., Bridger, J.C., and Derrick, J.M. (1974) :**
Relation between viruses from acute gastro- enteritis of children and new born calves.
Lancet, II : 611-63.
- Flores, J., Boeggeman, E., Purcell, R.H, (1983) :**
A dot hybridization assay for detection of rotavirus.
Lancet, I : 555-559.
- Fonteyne, J., Zissis, G., and Lambert, J.P., (1978) :**
Recurrent rotavirus gastroenteritis.
Lancet, I : 983.
- Foster, L.G., Peterson, H.W., and Spendlove, R.S., (1975) :**
Fluorescent virus precipitin test.
Proc. Soc. Exp. Biol. Med. 150- 155.
- Fukuhara, N., Yoshie, O., Kitaoka, S., & Konno, T., (1988) :**
Role of Vp3 in human rotavirus internalization after target cell attachement via Vp7.
J. Virol., 62 : 2209- 2218.
- George, M.C., Wachrmuth, T.K., Meunier, D.M.V., Nebout, N., Didier, F., Siopathis, M.R., (1984) :**
Parasitic, bacterial and viral enteric pathogens associated with diarrhea in the Central African Republic.
J.Clin. Microbiol., 19 : 571- 575.
- Gerna, G., Sarasini, A., Torsellini, M., di Matteo, A., Baldanti, F., Parea, M., and Battaglia, M., (1989) :**
Characterization of rotavirus subgroup- specific monoclonal antibodies and use in single- sandwich ELISA system for rapid subgrouping of human strains.
Arch. Virol., 107 : 315- 322.

Gerna, G., Sarasini, A., Torselline, M., Torre, D., Parea, M., Battaglia, M., (1990) :

Group and type- Specific serologic rotavirus infections and gastroenteritis caused by a strain of known serotype.

J. Infect. Dis., 161 : 1105- 1111

Goldwater, P.N., Chrystie, L.L., and Banatvala, J.E., (1979 a) :

Rotaviruses and the respiratory tract.

Br. Med. J., 2 : 1551.

Goldwater, P.N., (1979 b) :

Gastroenteritis in Auckland, an aetiological and clinical study.

J. Infection, 1 : 339- 351.

Gomwalk, N.E., Gosham, L. T., and Umoh, U. J., (1990) :

Rotavirus gastroenteritis in pediatric diarrhea in Jes, Nigeria.

J.Trop. Pediatr., 36 : 52-55.

Gorbach, S.L., Koan, B.H., and Evan, D.J. (1975) :

Traveller's diarrhea and toxigenic E. coli.

N. Eng. J. Med., 29 : 933.

Grauballa, P.C., Genner, J., Myling, A., and Mornsleth, A., (1977) :

Rapid diagnosis of rotavirus infection.

J. Virol., 35 : 203- 218.

Greenberg, H., Mc Auliffe, V., Valdesuso, J., Wyatt, R., Flores, J., Kalica, A.,

Hoshino, Y., and Singh, N., (1983) :

Serological analysis of the subgroup protein of rotavirus, using monoclonal antibodies.

Infect. Immun., 39 : 91-99.

Grimwood, K., Abbott, G. D., Fergusson, D.M., Jennings, L.C., and Allan, J.M., (1983) :

Spread of rotavirus within families : a community based study.

Br. Med. J., 287 : 575- 577.

Grimwood, K., Lund, J.C.S., Coulson, B.S., Hudson, I.L., Bishop, R.F., and Barnes, G.L., (1988) :

Comparison of serum and mucosal antibody response following severe acute rotavirus gastroenteritis in young children.

J.Clin. Microbiol., 26 : 732- 738.

Gurnow, A.W., Husband, A.S., Lascelles, A.K., (1985) :

Diarrhea among infants and young children in Canada : A longitudinal study in three northern communities.

J. Infect. Dis., 147 : 685- 692.

Gurwith, M., Wenman, W., Hinde, D., Fetham, S., Greenberg, H., (1981) :

A prospective study of rotavirus infection in infants and young children.

J. Infect. Dis., 114 : 218- 224.

Haffejee, I.E., and Moosa , A., (1990) :

Rotavirus studies in Indian (Asian), South African infants with acute gastroenteritis.

Ann. Trop. Paediatr., 110 : 165- 172.

Haikala, O.J., Kokkonen, J.O., Leinonen, M.K., Nurmi, T., Mantyjarvi, R., Sarkkinen, H.K., (1983) :

Rapid detection of rotavirus in stool by latex agglutination : Comparison with radio- immuno assay and electron microscopy and clinical evaluation of the test.

J.Med. Virol., 11 : 91- 97.

Hammami, S., Castro, A.E., and Osburn, B.I., (1990) :

Comparison of polyacrylamide gel electrophoresis, an enzyme- linked- immunosorbent assay, and an agglutination test for the direct identification of bovine rotavirus from feces and Co- electrophoresis of viral R.N.A.

J. Vet. Diag. Invest., 2 : 184- 190.

Hammond, G.W., Ahluwalia, G.S., Barber, F.G., Horsman, G., Hazelton, P.R., (1982) :

Comparison of direct and indirect enzyme immunoassays with direct ultracentrifugation before electron microscopy for detection of rotaviruses.
J.Clin. Microbiol., 16 : 53- 59.

Hammond, G.W., Ahluwalia, G.S., and Hazelton P.R., (1984) :

Detection of human rotaviruses in fecal specimens by a commercial latex agglutination test.
J. Infect. Dis., 149(6) : 1021.

Harald, B., Josett, S., and Denis, B., (1990) :

Prevalence and serotype specificity of rotavirus antibodies in different age groups of Ecuadorian infants.
J. Infect. Dis., 162 : 615.

Hasegawa, A., Matsuno, S., Inouye, S., Kono, R., Tsurukubo, Y., and Sato, Y., (1982) :

Isolation of human rotaviruses in primary cultures of monkey kidney cells.
J. Clin. Microbiol., 116 : 387.

Heath, R., Birch, C., Gust, I., (1986) :

Antigenic analysis of rotavirus isolates using monoclonal antibodies specific for human serotypes 1.2.3 & 4 and SA-11.
J. Gen. Virol., 67 : 1455- 2466.

Heppel, L.M., J., Cant, A.J., and Kilshow, P.J., (1984) :

Reduction in the antigenicity of whey proteins by heat treatment, a possible strategy for producing a hypo- allergenic infant milk formula.
Br. J. Nutr., 51 : 29- 36.

Herring, A.J., Inglis, N.F., Ojeh, C.K., Snodgrass, D.R., and Menzies, J.D., (1982) :

Rapid diagnosis of rotavirus infection by direct detection of viral nucleic acid in silver stained polyacrylamide gel electrophoresis.
Microbiol., 16 : 473.

- Hjelt, K., Grauballe, P.C., Andersen, L., Schiotz, P.O., Howitz, P., and Krasilnikoff, P.A., (1986) :**
Antibody response in serum and intestine in children up to six months after a naturally acquired rotavirus gastroenteritis.
J. Pediatr. Gastroenterol. Nutr., 5 : 74- 80.
- Hjelt, K., Grauballe, P.C., Paerregaard, A., Nielsen, O.H., and Krasilnikoff, P.A., (1987) :**
Protective immunoglobulin A against naturally acquired rotavirus infection in children.
J. Med. Virol., 21 : 39- 47.
- Ho, M.S., Glass, R.I., Monroe, S.S., Madore, H.I., Stine, S., Pinsky, P.F., Cubitt, D., Ashley, C., and Caul, E.D., (1989) :**
Viral gastroenteritis aboard a cruise ship.
Lancet, 21 : 961- 965.
- Hodes, H.L., (1980) :**
Gastroenteritis with special reference to rotavirus.
Adv. Ped., 27 : 195.
- Holmes, T.H., Ruck, B.Y., Bishop, R.F., & Davidson, G.P., (1975) :**
Infantile enteritis viruses : morphogenesis and morphology.
J. Virol., 16 : 937.
- Holmes, I. H., (1979) :**
Viral gastroenteritis program.
Med. Virol., 25 : 342- 348.
- Holmes, I.H., (1983) :**
Rotaviruses. In : Joklik, W.K., ed. The Reoviridae. New York : Plenum Press, 359- 423.

Homma, H., Uskijimma, H., Takagi, M. and Kitamiura T., (1990) :

Evaluation of a new enzyme immunoassay (Test- Pack Rotavirus) for diagnosis of viral gastroenteritis.

Kansenshogaku Zasshi, 64 : 174- 178.

Hoshino, Y., Wyatt, R.G., Greenberg, H.B., Flores, J., & Kapikian, A.Z., (1984) :

Serotypic similarity and diversity of rotaviruses of mammalian and avian origin as studied by plaque reduction neutralization.

J. Infect. Dis., 149 : 694- 702.

Hoshino, Y., Saif, L.J., Sereno, M.M., Chanock, R.M., X Kapikan, A.Z., (1988) :

Infection immunity of piglets to either VP3 or VP7 outer capsid protein confers resistance to challenge with a virulent rotavirus bearing the corresponding antigen.

J. Virol., 62 : 744- 748.

Housaham, K.C., Bowie, D.C., Mann, M.D., and Bowie, M.D., (1990) :

Factors influencing the duration of acute infections diarrheal diseases in infancy.

J. Pediatr. Gastroenterol. Nutr., 10 : 37- 40.

Hug, M.I., Rahman, A.S., Al- Sadiq, A., Al- Shahri, A., and Alim, A.R., (1987):

Rotavirus as an important cause of diarrhea in a hospital for children in Dammam, Saudi Arabia.

Ann. Trop. Paediatr., 7 : 173- 176.

Hull, B.P., Spencel, A., and Basset, D., (1982) :

The relative importance of rotavirus and other pathogens in the etiology of gastroenteritis in Trinindadian children.

Am. J. Trop. Med. Hyg., 35 : 142- 148.

Hurst, C.G., and Gerba, C.A., (1980) :

Stability of Simian rotavirus in fresh and estuarine water.
Appl. Environ. Microbiol., 39 : 1-5.

Hymas, J.S., Krause, P.J., Gleason, P.A., (1981) :

Lactose malabsorption following rotavirus infection in young children.
J.Paediatr., 99 : 916- 918.

Jawetz, E., Melnick, J.L., and Adelberg, E.A., (1978) :

Reoviruses in : Review of Medical Microbiology. 13 th ed. Lang Loss
Altos, California. P. 457.

Jawetz, E., Melnick, J.L., and Adelberg, E.A., (1987) :

Enteric Gram-Negative Microorganisms. In :Review of Medical
Microbiology. 16 th edition. Lang Loss Altos, California, P.P. 235- 246,
405- 412, 444, 464, 480.

**Jayashree, S., Bhan, M.K., Kumar, R., Raj, P., Glass, R., and Bhandari, N.,
(1988) :**

Serum and Salivary antibodies as indicators of rotavirus infection in
neonates.
J. Infect. Dis., 158 : 1117- 1120.

Kalica, A.R., Wyatt, R.G., and Kapikian, A.Z., (1978) :

Detection of differences among human and animal rotaviruses using
analysis of viral RNA.
Am. Vet. Med. Assoc., 173 : 531.

Kalica, A.R., Greenberg, H.B., and Wyatt, R.G., (1981) :

Genes of human (Strain Wa) and bovine (Strain UK) rotaviruses that code
for neutralization and subgroup antigens.
Virology, 112 : 385- 390.

Kalica, A.R., Flores, J., Green berg H.B., (1983) :

Identification of the rotaviral gen that codes for hemagglutination and protease- enhanced plaque formation.

Virology, 125 : 194- 205.

Kamel, M., Fayyad, I., El- Saifi, A., El- Mogy, F., Abou- Alam, M., and Denoyel, J., (1990) :

Rotavirus detection in acute diarrhea by enzyme- linked immunosorbent assay, latex particles and electron microscopy.

Med. J. Cairo. Univ., 58 : 31- 34.

Kang, S.Y., and Saif, L.J., (1991) :

Production and characterization of monoclonal antibodies against an avian group A rotavirus.

Avian- Dis., 35(3) : 563-571.

Kapikian, A.Z., Kim, H.W., Wyatt, R.G., Rodriguaz, W.Y., Ross, S., Cline, W.L., Porroth, R.H., and Chanock, R.M., (1974) :

Reovirus- like agent in stool associated with infantile diarrhea and development of serological tests.

Science, 185 : 1049.

Kapikian, A.Z., Cline, W.L., Mebus, C.A., Wyatt, R.G., Kalica, A.R., James, H.D., Vankirk, J.R.D., Chanock, R.M., and Kim, H.W., (1975) :

New complement- fixation test for the human rotavirus- like agent in infantile gastroenteritis.

Lancet, 1 : 1056.

Kapikian, A.Z., Kim, H.W., and Wyatt, R.G., (1976) :

Human rotavirus- like agent as the major pathogen associated with winter gastroenteritis in hospitalized infants and young children.

N. Engl. J. Med., 294 : 965- 972.

Kapikian, A.Z., Yolken, R.H., Greenberg, H.B., Wyatt, R.G., Kalica, A.R., Chanock, R-M., and Kim, H.W., (1979) :

Gastroenteritis viruses. In : Diagnostic procedure for viral, Rickettsial and Chlamydial Infection, 5th ed. (ed. E.H. Lenette and N.Y. Schmidt) PP. 927. American public Health Association.

Kapikian, A.Z., Cline, M.L., Greenberg, H.B., Wyatt, R.G., Kalica, A.R., Banks, C.E., James, H.D., Flores, J. and Chanock, R.M., (1981) :

Antigenic characterization of human and animal rotaviruses by immune adherence haemagglutination assay (IAHA). Evidence for distinctness of IAHA and neutralization antigens.

Infect. Immun., 33 : 415- 425.

Kapikian, A.Z., Wyatt, R.G., and Levine, M.M., (1983) :

Oral administration of human rotavirus to volunteers : Induction of illness and correlates of resistance.

J. Infect. Dis., 147 : 95- 106.

Kapikian, A.Z., Flores, J., and Hoshino, Y., (1986) :

Rotavirus : The major etiologic agent of severe infantile diarrhea may be controllable by a "Jennerian" approach to vaccination.

J. Infect. Dis., 153 : 815- 822.

Kapikian, A.Z., and Chanock, R.M., (1989) :

Viral gastroenteritis. In : Evans A.S., ed. Viral Infection of Humans, 3rd. ed New York : Plenum Press, P.P., 293- 340.

Kasempimolporn, S., Louisiriotchanakul, S., Sinarachatanant, P., and Wasi, C., (1988) :

Polyacrylamide gel electrophoresis and silver staining for detection of rotavirus in stools from diarrheic patients in Thailand.

J.Clin. Microbiol., 26 : 158- 160.

Kerzner, B., Buckwald, M., and Hamilton, J.R., (1976) :

In vivo production and inactivation of *Escherichia coli* enterotoxin.

Gastroenterology 67 : 983-990.

Khuffash, F.A., Sethi S.K. and Shaltout, (1988) :

Acute gastroenteritis : Clinical features according to etiologic agents.

Clin. Pediatr. (Philla), 27 : 365- 368.

Knisley, C.V., Bednarz- Prashad, A.J., and Pickering, L.K., (1986) :

Detection of rotavirus in stool specimens with monoclonal and polyclonal antibody- based assay system.

J. Clin. Microbiol., 23 : 897- 900.

Konno, T., Suzuki, H., Imai, A., and Ishida, N., (1977) :

Reovirus- like agent in acute epidemic gastroenteritis in Japanese infants, fecal shedding and serological response.

J. Infect. Dis., 135 : 259.

Konno, T., Suzuki, H., Imai, A., Kutsuzawa, T., Ishida, N., Kitaoka, S., and Tsuboi, R., (1978) :

A long term survey of rotavirus infection in Japanese children with acute gastroenteritis.

J. Infect. Dis., 138 : 569- 576.

Konno, T., Suzuki, H., Katsushima, N., Imai, A., Tazawa, F., & Kutsuzawa, N., (1983) :

Influence of temperature and relative humidity on human rotavirus infection in Japan.

J. Infect. Dis., 147 : 125.

Koopman, J.S., Turkish, V.J., Monta, A.S., Gouvea, V., Srivastova, S., and Isaacson, R.E., (1984) :

Patterns of etiology of diarrhea in three clinical settings.

Am. J. Epidemiol., 119 : 114- 119.

Kutsuzawa, T., Konno, T., Kapikian, A.Z., and Ishida, N., (1982) :

Isolation of human rotavirus subgroup I and II in cell culture.

J. Clin. Microbiol., 16 : 727.

Laron, S.A., and Homes, D.R., (1978) :

Relation of breast versus bottle feeding to hospitalization for gastroenteritis in middle- class U.S., population.

J. Pediatr., 139 : 470- 477.

Leksomboon, U., Echeverria, P., and Duangmani, C., (1981) :

Viruses and bacteria in pediatric diarrhea in Thailand : A study of multiple antibiotic resistant enteric pathogens.

Am. J. Trop. Med. Hyg., 30 : 1281.

Leung, A.K., and Pal, C.H., (198) :

Rotavirus gastroenteritis.

J. Diarrheal Dis. Res., 6 : 188- 207.

Levy, A.G. (1976) :

Gastroenterology, 70 : 321-326.

Lewis, H.M., Parry, J.V., Davies, H.A., Parry, R.P., Mott, A., Dourmashkin, R.R., Ryrrell, D.A.J., and Valman, H.B., (1979) :

A year's experience of the rotavirus syndrome and its association with respiratory illness.

Arch. Dis. Child., 5 : 411- 418.

Liu, M., Offit, P.A., and Estes, M.K., (1988) :

Identification of the Simian rotavirus SA-11 genome segment 3 product.

Virology, 163 : 26- 32.

Losonsky, G.A., Rennels, M.B., Lim, Y., Krall, G., Kapikian, A.Z. and Levine, M.M., (1988) :

Systemic and mucosal immune responses to rhesus rotavirus vaccine MMV 18006.

Pediatr. Infect. Dis. J., 7 : 388- 393.

Maclean, B. S., and Holmes, I.H., (1981) :

Effects of antibodies, trypsin and trypsin inhibitors on susceptibility of neonates to rotavirus infection.

J. Clin. Microbiol., 13 : 22.

Madeley, G.R., Gasgrove, B.P. Bell, E. J., and Fallon, B.J., (1977) :

Stool viruses in bodies admission with diarrhea.

J. Hyg., 78 : 261- 273.

Modeley, G.R., (1984) :

Other entettric viruses. In Topely and Wilson's Principles of Bacteriology, Virology, and Immunology. 7 th ed. (ed. G.S. Wilson, A.A. Miles) Vol. 4, Chap. 100 Published by Edward Arnold.

Maki, M. (1981) :

A prospective clinical study of rotavirus diarrhea in young children.

Acta Paediatr. Scand., 70 : 107- 113.

Martin, M.L., Palmer, E.L., Middleton, P.J., (1975) :

Ultrastructure of infantile gastroenteritis virus.

Virology, 68 : 146- 153.

Massoud, B.Z., Kassem, A.S., Omar, N.Y., and Madkour, A., (1983) :

Rotavirus and acute diarrhea in children in Alexandria,

Gas. Egyptian Pediatr. Assoc., 31 : 129.

Mossoud, A., Radwan, M., and El- Kholy, A., (1985) :

Prevalence of rotavirus among rural children during winter months.

Abstract open communication sessions of International congress for Infectious Diseases, Cairo, Egypt, April 20.

Mata, L.J., Simhon, A., Urrutia, J.J., Kronmal, R.A., Fernadez, R., and Gracia, B., (1983) :

Epidmeiology of rotavirus in acohort of 45 Guatemalen and Indian children obseved from birth to the age three years.

J. Infect, Dis., 148 : 452-461.

Matsui, S.M., Mackaw, E.R., and Greenberge, H.B., (1989) :

The molecular detemination of rotavirus neutralization and protection.

Adv. Viurs Res., 36 : 181- 214.

- Matsumoto, K., Hatano, M., Kobayashi, K., Hasegawa, A., Yamazaki, S., Nakata, S., Chiba, S., and Kimura, Y., (1989) :**
An out break of gastroenteritis associated with acute rotaviral infection in schoolchildren.
J. Infect. Dis., 160(4) : 611-615.
- Matthews, R.E.F., (1979) :**
The classification and nomenclature of viruses : Summaty of results of meetings of the international comittee on taxonomy of viruse in the Hague.
Inter. Virology, 11 : 133.
- Mavromichalis, J., Evans, N., Mc Neish, A.S., Bryden, A.S., Davies, H.A., and Flewett, A., (1977) :**
Intestinal damage in rotavirus and adenovirus gastroenteritis assessed by D-xylose malabsorption.
Arch Dis. Child., 52 : 589- 591.
- Mebus, C.A., White, R.G., Bass, E.P., and Twichous, M.J., (1973) :**
Immunity to neonatal calf diarrhea virus.
J. Am. Vet Med Associ., 53 : 183- 188.
- Mebus, C.A., Wyatt, R.G., and Kapikian, A.Z., (1977) :**
Intestinal lesions induced in gnotobiotic calves by the viruss of human infantile gastroenteritis.
Vet. Pathol., 14 : 273- 282.
- Mc Nulty, M.S., Allan, G.M., Curran, W.L., Mc Ferran, J.B., Bryson, D.G. Logen, E.E., and Curran, W.L., (1976) :**
Studies on rotavirus infection and diarrhea in young calves.
Veterinary Record., 12 : 229- 230.
- Mc Nulty, M.S., Allan, G.M., and Mc Ferran, J.B., (1977) :**
Cell culture studies with a cytopahtic bovine rotavirus.
Arch. Virol., 54 : 201- 209.

Mc Nulty, M.S., (1978) :

Rotaviruses.

J. General. Virol., 40 : 1-18.

Middleton, P.J., Szymanski, M.T., Abbott, G.D., Bortolussi, R., and Hamilton, J.R., (1974) :

Orbi- virus acute gastroenteritis of infancy.

Lancet, 1 : 1241.

Middleton, P.J., Petric, M., and Hewitt, C.M., (1976) :

Counter immunoelectrophoresis for the detection of infantile gastroenteitis virus antigen and antibody.

J.Clin. Pathol., 29 : 191.

Middleton, P.J., Holdaway, M.D., Petore, M., Szymanski, M.T., and Tam, J.S., (1977 a) :

Solid- phase radio- immunoassay for the detection of rotaviru.

Infect. Imm., 16 : 439.

Middleton, P.J., Szymanski, M.T., and Petric, M., (1977 b) :

Viruses associated with acute gastroenteritis in young children.

Am. J. Dis. Child., 31 : 733- 737.

Milne, R.G., and Luisoni. E. (1977) :

Rapid immune electron microscopy of virus preparation.

Methods Virol., 6 : 265- 281.

Moffet, M.L., (1974) :

Gastrointestinal syndromes in pediatric infection diseases. 2nd. ed.

Lippincott, Philadelphia, Toronto, Chapter 9:80-210.

Moosai, R.B., Gardner, P.S., Almeida, J.D., and Greenaway, M.A., (1979):

A simple immunofluorescence technique for the detection of humam rotavirus.

J. Med. Virol., 3:189.

Moosai, R.B., Carter, and Madeley, C.R., (1984):

Rapid detection of enteric adenovirus and rotavirus: A simple method using polyacrylamide gel electrophoresis.

J. Clin. Path. 37:1404.

Mourad, A.S., Ghoneim, F.M., El-Araby, I., and Mokhless, N.A., (1989):

Virological and epidemiological study of rotavirus infantile diarrhea.

J. Med. Res. Instit., 10:19-32.

Naguib, T., Wyatt, R.G., Mohieldin, M.S., Zaki, A.M., Imam I.Z., and Du Pont, H.L., (1984):

Cultivation and subgroup determination of human rotaviruses from Egyptian infants and young children.

J. Clin. Microbiol., 19 (2) : 210-212.

Nakata, S., Petrie, B.L., Calomeni, E.P., and Estes, M.K., (1987):

Electron microscopy procedure influences detection of rotaviruses.

J. Clin. Microbiol., 25:1902-1906.

Nelson, W.E., Vaughan, V.D., McKay, R.J., and Behram, R.E. (1983):

Nutritional disorder malnutrition In : Nelson Text Book of Pediatrics. 12 th. ed. Saunders Company, Philadelphia, London, Toronto. P. P., 166-180, 772-776, 781-783, 931-932.

Noriega, L.P., Arias, C.F., Lopez, S., Puerto, E., Snodgrass, D.R., Taniguchi, K., and Greenberg, H.B., (1990):

Diversity of rotavirus serotypes in Mexican infants with gastroenteritis.

J. Clin. Microbiol., 28: 1114-1119.

Nozawa, C.M., Lampe, E., Vaz M.G.S., and Von Hubinger, M.G., (1988):

immunofluorescent antibody to rotavirus and antigen excretion in infantile acute diarrhea.

Rev. Inst. Med. Trop. Sao Paulo. 30:332-335.

Offit, P.A., Clark, H.F., Blavat, G., and Greenberg, H.B., (1986):

Reassortant rotaviruses containing structural protein VP3 & VP7 from different parents induce antibodies protective against each parental serotype
J. Virol., 60:491-496.

Ojeh, C.K., Jiang, B.M., Tsunemitsu, H., Kang, S.Y., Weillnau, P.A., and Saif, L.J., (1991):

Reactivity of monoclonal antibodies to the 41- kilodalton protein of porcine group "C" rotavirus with homologous and heterologous rotavirus serogroups in immunofluorescence tests.
J. Clin. Microbiol., 29 (9):2051- 2055.

Pacini, D.L., Brady, M.T., Budde, C.T., Connell, M.J., Hamparian, V.V., and Hughes, J.H., (1987) :

Nosocomial rotavirus diarrhea : Pattern of spread on wards in a children's hospital.
J. Med. Virol., 23 : 359- 366.

Pacini, D.L., Brody, M.T., Budde, C.T., Connell, M.J., Hamparian, V.V., and Hughes, J.H., (1988) :

Polyacryamide gel electrophoresis of RNA compared with polyclonal- and monoclonal- antibody- based enzyme immunoassays for rotavirus.
J. Clin. Microbiol., 26 : 194- 197.

Pai, C.H., Shahrabadi, M.S., and Ince, B., (1985) :

Rapid diagnosis of rotavirus gastroenteritis by a commercial latex agglutination test.
J.Clin. Microbiol., 22 ; 846- 850.

Palmer, E.L., Martin, M.L., and Murphy, F.A., (1977) :

Morphology and stability of infantile gastroenteritis virus : Comparison with reovirus and blue tongue virus.
J.Gen. Virol., 35 : 403.

Panicker, C.K.J., Matthew, S., and Mathan, M., (1982 a) :

Further observation on the ultrastructure of human rotavirus.
J.Gen. Virol., 62 ; 105.

Panicker, C.K.J., Matthew, S., and Mathan, M., (1982 b) :

Rotavirus acute diarrheal disease in children in Southern Indian Coastal town.
W.H.O., 60: 123.

Penelope, H.D., Dorothy, R.G., and Sara, E.S., (1990) :

Choice of reference assay for the detection of rotavirus in fecal specimen.
Electron microscopy versus enzyme immunoassay.
J. Clin. Microbiol., 28: 1280- 1283.

Perbal, B., (1984) :

Practical guide to molecular cloning. P. 196- 207. John Wiley & Sons, Inc.
New York.

Persson, B.L., Thoren, A., Tufuesson, B., and Walder, M., (1982) :

Diarrhea in Swedish infants- etiology and clinical appearance.
Acta paed. Scand., 20 ; 909- 919.

Peter, E., Blacklow, N.R., Vollet, J.L., Ulyango, C.V., Cuker, Soriano, V.B.,

Dupont, H.L., and Cross, J.H., (1978) :

Reovirus like agent and enterotoxigenic *Escherichia coli* infection in pediatric diarrhea in the philippines.
J. Infect. Dis., 138 : 326- 332.

Peterson, H.W., Spendlove, R.S., and Smart, R.A., (1976) :

Detection of neonatal calf diarrhea virus, infant reovirus- like diarrhea virus, and a coronavirus using the fluorescence virus precipitin test.
J. Clin. Microbiol., 3 : 376.

Pichichero, M.E., (1990) :

Effect of breast- feeding on oral Rhesus rotavirus vaccine seroconversion :
A meta- analysis.
J. Infect. Dis., 162 : 753- 755.

Podgore, J.K., Mourad, A.S., Diad, A.S., and Kassim, H., (1982) :

The role of rotavirus in acute winter diarrhea in Alexandria, Egypt.
J. Med. Resear. Inst. 2 :1

Prasad, B.V., Wang, G.J., Clerx, J.P.M., and Chlu, W., (1988) :

Three dimentional structure of rotavirus.
J. Mol. Biol., 199 : 269- 275.

Qrstavik, I., and Haug, K.W., (1989) :

Virus specific Ig M antibodies in acute gastroenteritis due to rotavirus.
Scand. J. Infect. Dis., 8 : 237- 240.

Racz, M.L., Candieas, J.A., Trabulsi, J.R., and Murahowshi, J., (1988) :

Diarreal disease in Brazil.
Eur. J. Epidemiol., 4 : 382- 385.

Rahman, M.M., Aziz, M.S., Munshi, M.H., Patwari, Y., Rahman, (1982) :

A diarrhea clinic in rural Bangladesh : Influence of distance, age and sex on
attendance and diarrheal mortality.
Am. J. Public Health., 72 : 1124-1128.

Ramia, S., (1985) :

Transmission of viral infection by the water route : Implication for
developing countries.
Rev. Infect. Dis., 7 : 180-188.

Reves, R.R., Hossain, M.M., Midthun, K., Kapikian A.Z., Naguib, T., Zaki, A.M., and Du Pont, H.L., (1989) :

An observational study of naturally acquired immunity to rotaviral diarrhea in a cohort of 363 Egyptian children. Calculation of risk for second episodes using age specific person years of observation.

Am. J.Epidemiol., 130 : 981- 988.

Riepenhoff- Talty, M., Bagger- Goren, S., Li, P., Carmody, P.J., Barrett, H.J., and ogra, P.L., (1981) :

Development of serum and intestinal antibody response to rotavirus after naturally acquired rotavirus, infection in man.

J. Med. Virol., 8: 2115-222.

Robert, E.B., Merson, M.H., Huq, I. and Alim, A.R.M.A. (11981) :

Incidence and severity of rotavirus and Escherichia coli diarrhea in rural Bangladesh.

Lancet, 17: 141-143.

Robert, W.J., Garry, T., Williams, J., Klish, and Marily, R.B., (1984) :

Effect of breast feeding on morbidity of rotavirus gastroenteritis.

Pediatrics, 2: 74-75.

Robert, H.Y., Genevieve, A.L., Steven, V., Flora, L., and Stake, B.W., (1985) :

Antibody to human rotavirus in cow's milk.

N. Engl. Med., 19 : 605-610,

Ruuska, T. and Vesikari, T., (1990) :

Rotavirus disease in finnish children : Use of numerical scores for clinical severity of diarrheal episode.

Scand. J. Infect. Dis. 22: 259- 267.

Ryder, R.W., Mc Gowan, J.E, Hatch, M.H., and Palmer, E.L., (1977) :

Reovirus like agent as a cause of nosocomial diarrhea in infants.

J.Pediatr., 90 : 698- 702.

- Ryder, R.W., Singh, N., Reeves, W.C., Kapikian, A.Z., Greenberg, H.B., and Sack, R.B., (1985) :**
Evidence of immunity induced by naturally acquired rotavirus in Norwalk islands.
J.Infect. Dis., 151: 99-105.
- Sabara, M., Ready, K.F.M., Frenchick, P.J., & Babiuk, L.A., (1987) :**
Biochemical evidence for the oligomeric arrangement of bovine rotavirus nucleocapsid protein and its possible significance in the immunogenicity of this protein.
J.Gen. Virol., 68 : 123- 133.
- Sack, D.A., Gilman, R.H., Kapikian, A.Z., Aziz, M.S., (1980) :**
Seroepidemiology of rotavirus infection in rural Bangladesh.
J.Clin. Microbiol., 11 : 53.
- Sallam, S.A., Hassan, M.N., Hasab, A.A., Sherif, A.A., Abd-El-Gawad, A., El-Shazly, S., and El-Attar, E., (1983 a) :**
Epidemiology of diarrhel disease.
Gas. Egyptian Paediatr. Assoc., 12 : 7-31.
- Sallam, S.A., Hasab, A.A., Sherif, A.A., and Mourad, A.S., (1983 b) :**
Rotavirus diarrhea among children below 5 years.
Gas. Egyptian Paediatr. Assoc., 31 : 1.
- Salmi, T.T., Arstila, P., Koivikko, A. (1978) :**
General nervous system involvement in patients with rotavirus gastroenteritis.
J. Infect.. Dis., 10:29
- Sambourg, M., Goudeau, A., Courant, C., Pinon, G., and Demis, F., (1985) :**
Direct appraisal of latex agglutination testing a convenient alternative to enzyme immunoassay for the detection of rotavirus in child-hood gastroenteritis by comparison of two enzyme immunoassays and to latex tests.
J.Clin. Microbiol., 21:622-625.

- Sandino, A.M., Jashes, M., Faundez, G., and Spencer, E., (1986) :**
Role of the inner protein capsid on invitro human rotavirus transcription.
J. Virol., 60:797-802.
- Sanekate, T., Yosnido, Y., and Okada, H., (1981) :**
Detection of rotavirus in feces by latex agglutination.
J. Immunol. Methods, 41:337-385.
- Santosham, M., Pathak, A., Kottapalli, S., Vergara, J., Wong, S., Frochliok, J. and Sack, R.B., (1982) :**
Neonatal rotavirus infection.
Lancet, 1:1070-1071.
- Sato, K., Inaba, Y., Fuju, R., and Matumoto, M., (1981) :**
Isolation of human rotavirus in cell cultures.
Arch. Virol., 69:155-160.
- Sattar, S.A. Raphael, R.A., and Springthorpe, V.J. (1984) :**
Rotavirus survival in conventionally treated drinking water. Can.
J. Microbiol., 30:654-666.
- Saulsberry, F.T., Winkelstein, J.A., and Yolken, R.H., (1980) :**
Chronic rotavirus infection in immunodeficiency.
J. Pediatr., 97:61-65.
- Schwarz, K.B., Moore, T.J., Willoughby, R.E. Jr., Wee, S.B., and Yolken, R.H., (1990) :**
Growth of group A rotavirus in a human liver cell culture.
Hepatology, 12:638-643.
- Serrander, R., Magnusson, K., and Sundgivist, T., (1984) :**
Acute infection with giardia lamblia and rotavirus disease intestinal permeability to low molecular weight polyethylene glycols.
Br. Med. J., 2:9-15.

Sheishaa, a.A., (1986) :

Fecal bacterial flora and secretory immunoglobulin in infants and children with acute diarrhea. Pediatric Mansura University. M.D. of Pediatrics.

Shepherd, R.W., Truslow, S., and Walker-Smith, J.A., (1975) :

Infantile gastroenteritis : A clinical study of reovirus-like agent infection.
Lancet, 2:1082.

Shirley, J.A., Bears, G.M., Thouless, M.E., and Flewett, T.H., (1981) :

The influence of divalent cations in the stability of human rotavirus.
Arch. Virol., 67:1-9.

Shukry, S., Zaki, A.M., Shoukry, I., Tagi, M.E., and Hamed, Z., (1986) :

Detection of enteropathogens in fatal and potentially fatal diarrheas in Cairo, Egypt.
J. Clin. Microbiol., 24:959-962.

Singh, V., Broor, S., Mehta, S., and Mehta, S.K. (1989) :

Clinical and epidemiological features of acute gastroenteritis associated with human rotavirus subgroup 1 and 2 in Northern India.
Indian J. Gastroenterol. 8:23-25.

Simhon, A., and Mata, L., (1978) :

Anti-rotavirus antibody in human colostrum.
Lancet, 1:39.

Smith, W.J. (1978) :

Rotavirus gastroenteritis.
J. Clin. Microbiol., 15:245-260.

Smith, E.M., and Gerba, C.P., (1980) :

Survival and detection of rotavirus in the environment.
J. Clin. Microbiol., 16:232-239.

- Soenarto, Y., Sebodo, T., Ridho, R., and Bishop, R.F., (1981) :**
Acute diarrhea and rotavirus infection in newborn babies and children in Yogyakarta, Indonesia, from June 1978 to June 1979.
J. Clin. Microbiol., 14:123.
- Soenarto, Y., Seboda T., Suryantore, P., Krisnomurti and Haksokusodo, S., (1983) :**
Bacterial, parasitic agents and rotaviruses associated with acute diarrhea in Hospital In-Patient Indonesian Children.
Trans.R. Soc. Trop.Med. Hyg., 77:724-730.
- Sondgrass, D.R., Wells, P.W., and Herring, (1976) :**
Rotavirus infection in lambs : Studies on passive protection.
Arch. Virol., 52:201-205.
- Spence, L., Fawel, M., Bouchard, S., Babiuk, L., and Saunders, J.R., (1975) :**
Test for reovirus- like agent.
Lancet, 2: 322.
- Spence, L., Fauvel, M., Petro, R., and Block, S., (1977) :**
Comparison of counter- immuno electrophoresis and electron microscopy for laboratory diagnosis of human reovirus- like agent associated infantile gastroenteritis.
J. Clin- Microbiol., 5 : 248.
- Spendlove, R.S., and Schaffer, F.L., (1965) :**
Enzymatic enhancement of infectivity of reovirus.
J. Bacteriol., 89 : 597.
- Spencer, F.B., Weiss, J., Handrick, W., Rieske, K., and Springer, W., (1987) :**
Evaluation of a latex agglutination test for rapid detection of rotavirus in fecal specimens.
J. Hyg. Epidemiol. Microbiol. Immunol., 31 ; 65-68.
- Spratte, H. C. and Marks, M. I. (1979) :**
New concepts in viral gastroenteritis. *Infection*, 8, 2 : 48- 52.

Stannard, L.M., and Schoub, B.D., (1977) :

Observation on the morphology of two rotaviruses.

J. Gen. Virol., 37 : 435.

Steele, A.D., and Alexander, J.J., (1988) :

The relative frequency of subgroup I and II rotaviruses in black infants in south Africa.

J. Med. Virol., 24 : 43-56.

Steven, M.L., and Karen, A.Z., (1989) :

Comparison of four latex agglutination (LA) and three enzyme- linked immunosorbent assays (ELISA) for the detection of rotavirus in fecal specimens.

Am. J. Clin. Pathol., 92 : 637- 643.

Suzyki, H., Chen, G.M., Hung, T., Beards, G. M., Brown, D.W., and Flewett, T.H., (1987) :

Effect of two staining methods on the Chinese atypical rotavirus.

Arch. Virol., 94 : 305- 308.

Svensson, L., Monica, G., and Carl, A.B.P., (1983) :

Comparison of solid- Phase immuno- electron microscopy by use of protein A with direct electron microscopy and enzyme- linked immuno- sorbent assay for detection of rotavirus in stool.

J. Clin. Microbiol., 18 : 1291- 1295.

Svensson, L., Grahnquist, L., pettersson, C.A., Grandien, M., Stinzing, G., & Greenberg, H.B., (1988) :

Detection of human rotaviruses which do not react with subgroup I and II-specific monoclonal antibodies.

J. Clin. Microbiol., 26 : 1238- 1240.

Tan, J.A., and Schnagl, R.D., (1981) :

Inactivation of a rotavirus by disinfectants.

Med. J.Aust., 1 : 19 : 23.

Taniguchi, K., Urasawa, S., & Urasawa, T., (1985) :

Preparation and characterization of neutralizing monoclonal antibodies with different reactivity patterns to human rotaviruses.

J. Gen. Virol., 66 : 1045- 1053.

Taniguchi, K., Urasawa, T., Morita, Y., Greenberg, H.B., and Urasawa, S. (1987) :

Direct serotyping of human rotavirus in stools using serotype 1-,2-, 3-, and 4- specific monoclonal antibodies to VP7.

J. Infect. Dis., 155 : 1159- 1166.

Tardelli Gomes, A.T., Vilma, R., Kristine, L.M., Silva Romas, S.R.T., Trabulsi, L.R., and Vierira, M.A.M., (1991) :

Enteropathogens associated with acute diarrheal diseases in urban infants in Sao Paulo, Brazil.

J. Infect. Dis., 164 : 3311- 337.

Theil, K.W., Bohl, E.H., and Agnes, A.G., (1977) :

Cell culture propagation of porcine rotavirus.

Am. J. Vet. Res., 38 : 1765.

Theil, K.W., Reynolds, D.L., and Saif, Y.M., (1986) :

Comparison of immune electron microscopy and genome electropherotyping technique for detection of turkey rotaviruses and rotavirus- like viruses in intestinal contents.

J. Clin. Microbiol., 23 : 695- 699.

Theil, K.W., & McCloskey, C.M., (1988) :

Characterization of a bovine group A rotavirus with a short genome electropherotype.

J. Clin. Microbiol., 26 : 1094- 1099.

- Thouless, M.E., Bryden, A.S., Flewett, T.H., Snodgrass, D.R., and Herring, J.A., (1977) :**
Serological relationship between rotaviruses from different species as studied by complement fixation and neutralization.
Arch. Virol., 53 : 287- 294.
- Thouless, M.E., (1979) :**
Rotavirus Polypeptides.
J.Gen. Virol., 44 : 187.
- Tottordell, B.M., Chaystie, I.L. and Bantoval, J.E., (1976) :**
Rotavirus infection in maternity unit.
Arch. Dis. Child., 51 : 924.
- Toyoko, T., Albert, M.J., Soenarto, Y., and Bishop. R., (1982) :**
Epidemiology of rotavirus diarrhea in yogyakarta, Indondonesia, as revealed by electrophoresis of genome R.N.A.
J. Clin. Microbiol., 16 : 731- 733.
- Uhnnoo, I., Wadell, G.S., and Johanson, M., (1983) :**
Two new serotypes of enteric adenovirus causing infantile diarrhea.
Ben. Biol. Stand., 53 : 311-318.
- Vaughan, J.M., Chen, Y.S., & Thomas, M.Z., (1986) :**
Inactivation of human and Simian rotaviruses by chlorine.
Appl. Environ. Microbiol., 51 : 391- 394.
- Vijayan, V., Quak, S.H., and Wong, H.B., (1990) :**
Incidence, Clinical features, and epidemiology of rotavirus gastroenteritis in hospitalized children.
Ann. Trop. Baediatr., 10 : 179- 183.
- Wanatabe, H., and Holmes, I.H., (1977) :**
Filter Paper Solid- Phase radio- Immuno assay for human rotavirus surface immunoglobulins.
J.Clin. Microbiol., 6: 319.

- Ward, R.L., Mc Neal, M.M., Clemens, J.D., Sack, D.A., and Rao, M., (1991) :**
Reactivities of serotyping monoclonal antibodies with culture- adapted human rotaviruses.
J.Clin. Microbiol., 29(3) : 4499- 456.
- Weir, D.M., (1983) :**
Immunology. Livingstone, C.P., 236- 238.
- W.H.O. Scientific Working Group (1980) :**
Rotavirus and other viral diarrheas.
Bull. W.H.O., 58 : 183.
- Wilde, J., Eiden, J., and Yolken, R., (1990) :**
Removal of inhibitory substances from human fecal specimens for detection of group A rotavirus by reverse transcriptase and polymerase chain reaction.
J. Clin. Microbiol., 28 : 1300- 1307.
- Woode, G.N., Jones, J., and Bridger, J., (1975) :**
Levels of colostral antibodies against neonatal calf diarrhea virus.
Vet. Record., 97 : 148- 149.
- Woode, G.N.; Crouch, C.F.J. (1978) :**
Am. Vet. Med. Assoc., 173 : 522- 526.
- Wyatt, R.G., Kapikian, A.Z., Thornhill, T.S., Kim, H.W., and Chanock, R.M., (1974) :**
In Vitro cultivation in human foetal intestinal organ culture of a reovirus-like agent associated with non- bacterial gastroenteritis in infants and children.
J. Infect. Dis., 130 : 523.
- Wyatt, R.G., Gill, V.W., Sereno, M.M., Kalica, R.G., Chanock, R.M., and Kapikian, A.Z., (1976) :**
Probable in vitro cultivation of human reovirus- like agent of infantile diarrhea.
Lancet, 1: 98.

- Wyatt, R.G., Kalica, A.R., Mebus, C.A., Kim, H.W., London, W.T., Chanock, R.M., and Kapikian A.Z., (1978) :**
Reovirus- like agents (rotaviruses) associated with diarrheal illness in animals and man. Pages : 121-145 in M. Pollard, ed., Perspectives in Virology, 10, Raven Press, N.Y.
- Wyatt, R.G., James, W.D., Bohl, El., Kalica A.R., Greenberg, H.B., Kapikian, A.Z., and Chanock, R.M., (1980) :**
Human rotavirus tupe 2; Cultivation in vitro.
Science, 207 : 189.
- Wyatt, R.G., James, S.D., Bohl, E.H., Theil, K.W., Saif, L.F., Kalica, A.R., Greenberg, H.B., Kapikian, A.Z., & Chanok, R.M. (1982) :**
Human rotavirus serotypes by plaque reduction assay.
Infect. Immunol., 37 : 110.
- Wyatt, R.G., James, H.D., Pittman, A.L., Hoshino, Y., Greenberg, H.B., Kalica, A.R., Flores, J. and Kapikian, A.Z., (1983 a) :**
Direct isolation in cell culture of human rotaviruses and their characterization into four serotypes.
J. Clin. Microbiol., 18 : 310-317.
- Wyatt, R.G., Kapikian, A.Z., and Mebus, C.A., (1983 b) :**
Induction of cross- reactive serum neutralizing antibody to human rotavirus in calves after in utero administration of bovine rotavirus,
J. Clin. Microbiol., 18 : 505.
- Yap, K.L., Dahlan, S., Dip, M., Tech, and Parajathy, A.M., (1984) :**
Human rotavirus infection in Malaysia : A study of the influence of living standard on the Prevalence of rotavirus- associated gastroenteritis in children hospitalized with diarrhea.
J.Trop. Ped., 130, 269- 271.

Yolken, R.H., Wyatt, R.G., Kalica, A.R., Kim, H.W., Brandt, C.D., Kapikian, A.Z., and Chanock, R.M. (1977) :

Use of a free viral radio immunoassay to detect human reovirus- like agent in human stools.

Infect. Immun., 16 : 467.

Yolken, R.H., Wyatt, R.G., Barbour, B.A., Kim, H.W., Kapikian, A.Z., Chanock, R.M., (1978 a) :

Measurement of rotavirus antibody by an enzyme- linked- immunosorbent assay blocking assay.

J.Clin. Microbiol., 8 : 283- 287.

Yolken, R.H., Wyatt, R.G., Zissis, G., Mata, L., Rodriguez, W.J., Greenberg, H.B., and Kapikian, A.Z., (1978 b) :

Epidemiology of human rotavirus type I and II as studied by enzyyme-linked- immunosorbent assay.

New Eng. J. Med., 299 : 1156.

Yolken, R.H., Laivrence, F., Leister, F., Takiff, H.E., and Strauss, S.E.,(1982):
Gastroenteritis associated with enteric type adenovirus in hospitalized infants.

J. Pediat., 101 : 21-26.

Yolken, R.H., (1983) :

Avidin- biotin radio- immunoassay for human rotavirus.

J. Infect. Dis., 148 : 942.

Yolken, R. H., Genevieve, A.L., Steven, V.D.V.M. Flora, L.B.A., and Siok, B.W., (1985) :

Anntibody to human rotavirus in cow's milk

New Engl. J. Med., 18 : 605- 609.

Zaki, A.M., Dupont, H., Shoukry, S., and El- Alany, M., ((1985) :

Aetiology of acute diarrhea in Egypt. Abstract open communication session of International Congress for Infectious Diseases, Cairo, Egypt. April, 20- 24.

Zissis, G., and Lambert, J.P., (1978 a) :

Different Serotypes of human rotavirus.

Lancet, 1 : 39.

Zissis, G., Lambert, J.P., and Deicegel, D., (1978 b) :

Routine diagnosis of human rotavirus in stools.

J.Clin. Pathol., 31: 75- 178.