Virus Name: Chobar Gorge	Abbreviation: CGV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Ungrouped

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
701700-8

Accession Number

Original Date Submitted
6/5/1984

Family
Reoviridae

Genus
Orbivirus

Information From
Director, Virus Research Centre

Address
Poona, India

Information Footnote
Revised

Section II - Original Source

Isolated By (name)
K. Banerjee

Isolated at Institute
Poona

Host Genus
Ornithodoros spp. (pool of ten nymphs and adults mixed)

Species

Host Age/Stage
Nymphs/adults

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
UNKNOWN

Collection Date
5/11/1970

Place Collected (Minimum of City, State, Country)
Chobar Gorge, Nepal

Latitude
27° 40' N

Longitude
85° 17' E

Macrohabitat
4,200 ft. high gorge of Bagmati River 7 miles SW of Khatmandu

Microhabitat
Walls and floor of a limestone cave

Method of Storage until Inoculated
Kept alive in glass tubes

Footnotes

Section III - Method of Isolation

Inoculation Date
6/3/1970

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Not tried

Other Reasons
No other virus of similar nature existed in the laboratory.

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical
RNA, Double Strand

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer **7.0 dex**	Control Titer **7.5 dex**
Lipid Solvent (deoxycholate)	After Treatment Titer **<2.0 dex**	Control Titer **6.5 dex**

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions **60 nm**	
Mean nm	Range nm	
Measurement Method **Electron microscopy**	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry **Virions have a dense central core**

with a lighter z

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Virions associated with a matrix in typical orbivirus morphogenesis.		
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Goose**
pH Range	pH Optimum	
6.0-6.8		
Temperature Range	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

Chobar Gorge virus is related to the previously ungrouped Fomede virus by IFA and CF tests [3] .

An antigen for Chobar Gorge virus did not react with the group specific sera of the following: Group A, B, C, Guama, Simbu, Bunyamwera, VSV, Tacaribe, Anopheles A, Anopheles B, Turlock, California, Capim, Phlebotomus, polyvalent sera against Palyam, Corriparta, Eubenangee viruses; Kaisodi, Quaranfil, Qalyub viruses; Tete, Matariya, An 1398 viruses; against LCM and rabies viruses.
Hyperimmune mouse serum against Chobar Gorge virus did not react with the antigens of the following: Bwamba, Pongola; Bushbush, Capim, Guajara; Changuinola, Irituia; Koongol, Wongol; Chaco, Timbo; Yaba 1, Hughes, Farallon, Soldado; Kaisodi, Lanjan, Silverwater; Kemerovo, Chenuda, Lipovnik, Tribec, Qalyub, Bandia; Quaranfil, Johnston Atoll viruses.
In addition, other viruses including Hart Park, Navarro, Triniti, Ieri, Aruac, Marco, Rift Valley fever, Lebombo, Witwatersrand, Balgodu, Venkatapuram, Maputta, Corriparta, Kowanyama, Congo, Bhanja, Upolu, Colorado tick fever, Dera Ghazi Khan, Hazara, Matucare, Nyamaninni, Manawa, Lahore, Sawgrass, Thogoto, Lone Star, Wanowrie, Wad Medani, UGMP 5659, Huacho, Kern Canyon, Klamath, Cotia, Embu, Jurona, Kwatta, Pacui, Tembe, Agua Preta, Pan D50, Pacora, La Joya, Buenaventura, Lagos bat, Mt. Elgon bat, Ogunpa, Tataguine, Acado, Chandipura (IbAn 9978), Gabek Forest (IbAn 10065), IbAn 17143, Gossas, SudAr 1225, Obodhiang (SudAr 1275), UAR 1477, UARAn 1825, Nkolbisson, Ym 176, Ichampadi, Minnal, and Palyam viruses did not react in CF.

The antigen of Chobar Gorge* virus did not react with 46 unnamed viruses present in YARU, thus completing all the available viruses at YARU.

* Chobar Gorge virus formerly referred to as Nepal virus (ed.).

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
Vero (CL)	SMB		Virus growth						
BS-C-1 (CL)			CPE						
Vero (CL)		2	CPE		7	0.1 mm	7.0**(2)		
LLC-MK2 (CL)		3	CPE			No plaques (2)			
PS (CL)		2	CPE		7	0.7 mm	5.7 (2)		
C6/36 (CL)			No CPE (2)						

** Expressed in dex

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Ornithodoros spp.	1/10		Nepal
Man		28/224	Nepal (1)
Cattle		58/87	
Mules		0/8	
Horses		1/16	
Goats		0/7	
Sheep		20/32	
Buffalo		2/2	

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	SMB	ic 0.02	Sickness and death	2	8.7
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic	Immunization		
Mice (wn)		ip			

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature	Residual	Death
Subclinical	Overt Disease	
Clinical Manifestations		
Number of Cases	Category (i.e. febrile illness, etc.)	

Section XII - Geographic Distribution

Known (Virus detected)
Nepal

Suspected (Antibody only detected)

Section XIII - References

1. Director, Virus Research Centre, Poona, India. Personal communication. 1980.
2. Calisher, C.H. Personal communication. 1983.
3. Brown, S. Personal communication. 1985.
4. Zeller, H. et al. 1989. Ill. Arch. Virol. Submitted.

Remarks