

Nipah, Hendra ve Diğer Henipaviruslar

I. Viral İnfeksiyonlar ve Bağışıklama Simpozyumu

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20.09.2024

Henipaviruslar

Pteropus cinsi yarasalar



Henipaviruslar

□ Paramyxoviridae ailesi

➤ Henipavirus genusu

✓ **Nipah virusu**

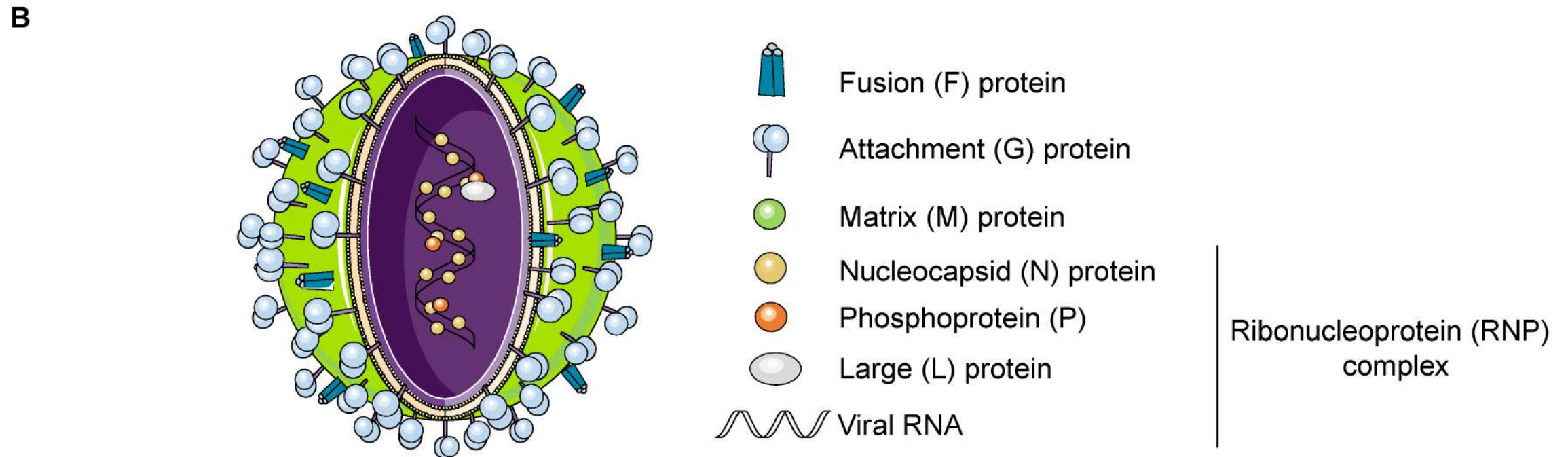
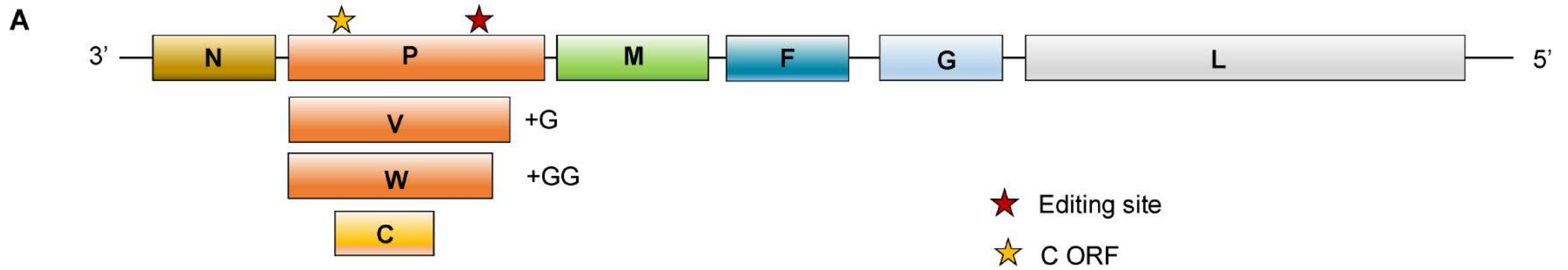
✓ **Hendra virusu**

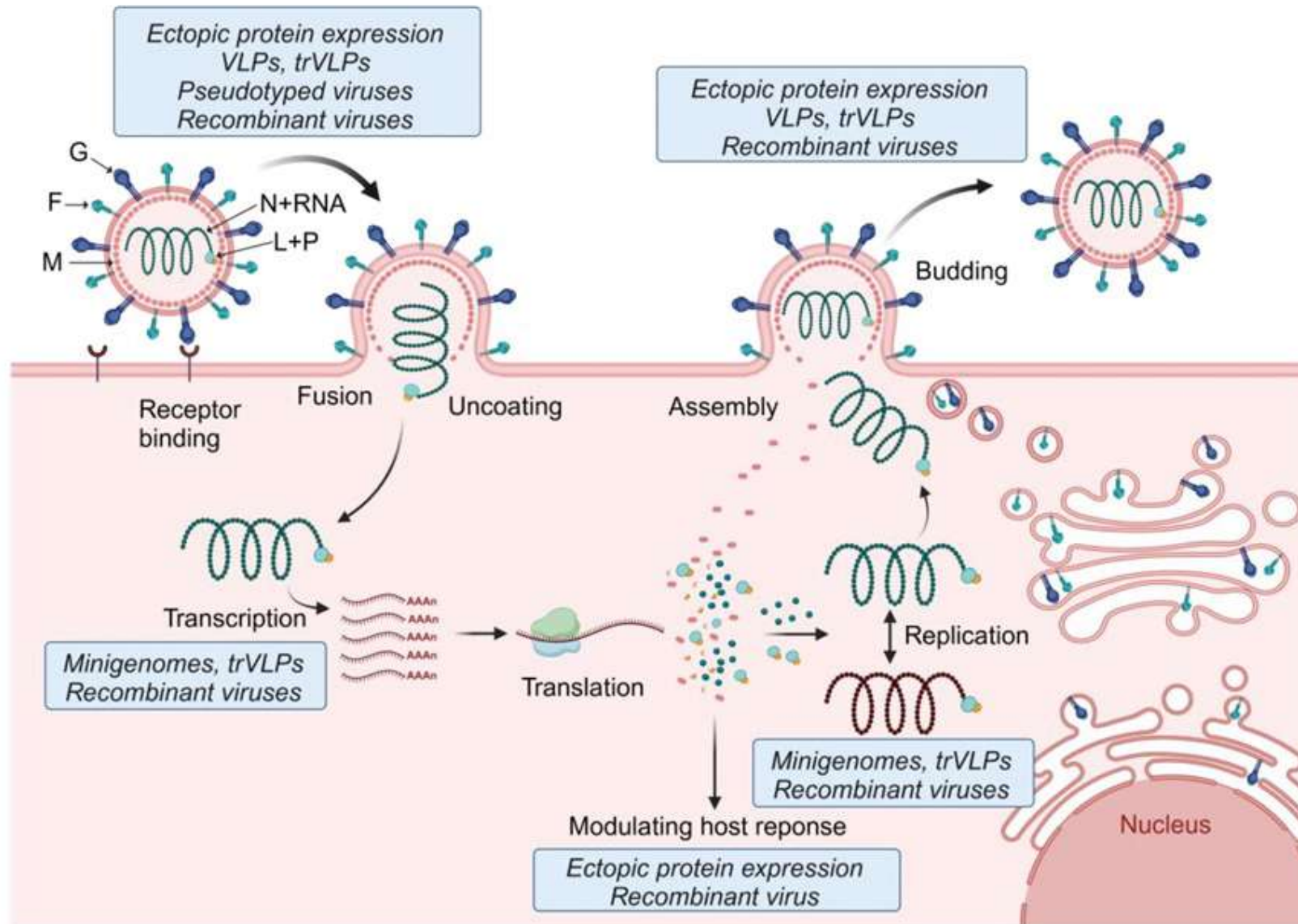
✓ **Langya virusu**

✓ Cedar virusu

✓ Ghana virusu

✓ Angavokeli virusu





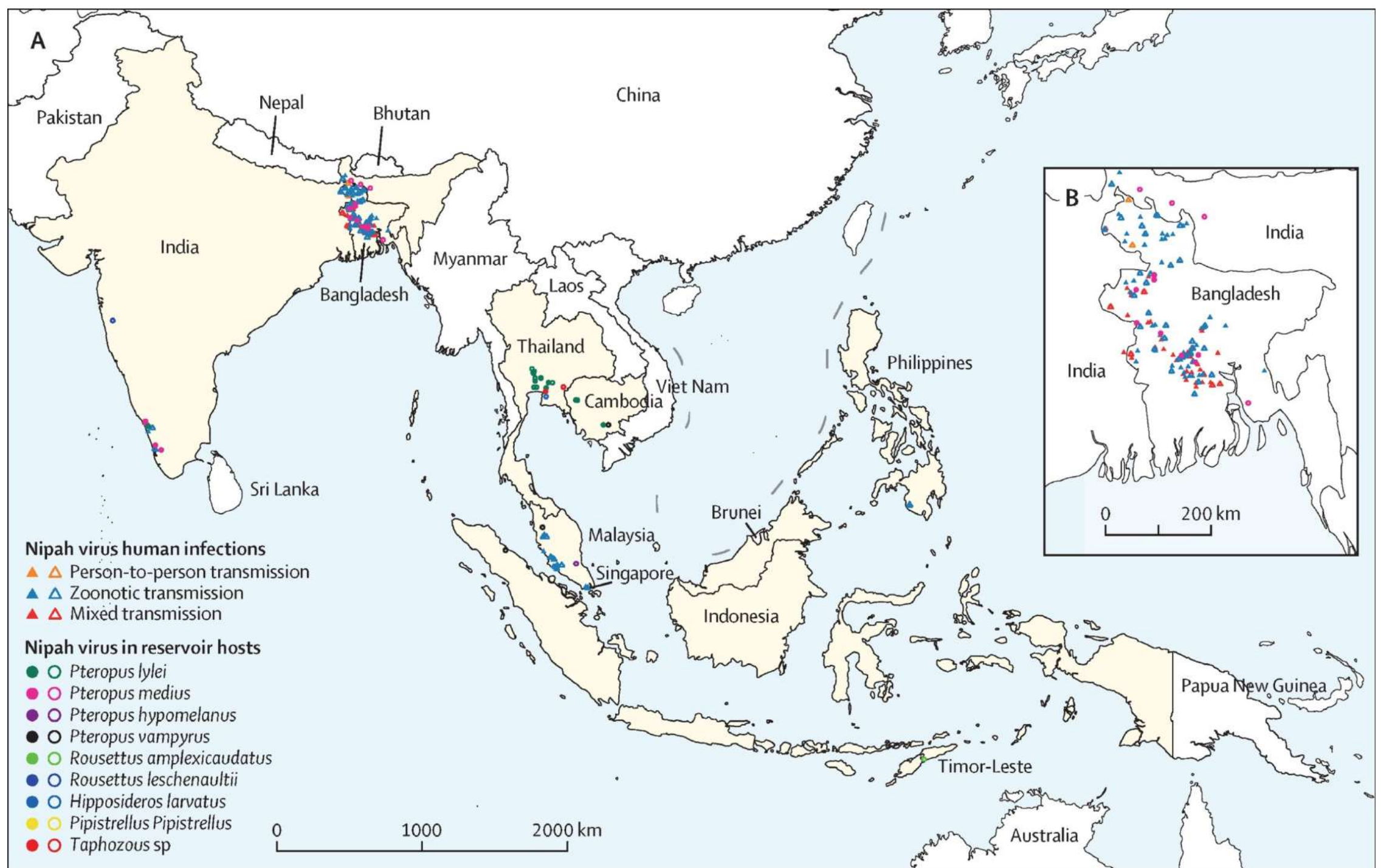
Nipah Virusu

- Tek sarmallı zarflı RNA virusu
- Zoonotik döngü → Meyve Yararasası (Pteropodidate ailesi) Doğal konak → Domuz (Ara konak) → İnsan
- İlk kez 1998-1999 Malezya salgını
- Bangladeş 2001-2014
- Filipinler 2004
- Hindistan 2001 ve 2007, 2018

Nipah Virusu

❑ Malezya salgını (1998-1999)

- NiV-MY
- 283 vaka
- 109 ölüm (akut ensefalit)
- Domuzların sekresyonları ve çıkartılarına direkt temas ile bulaş
- İnsandan insana bulaş daha nadir
- Salya, burun, farenks sıvısı ve idrardan virus izole edildi
- Doğal rezervuar meyve yarasaları (Pteropid spp.)
- Hayvan transferi ile Singapor'a yayıldı



Pteropodidae spp.

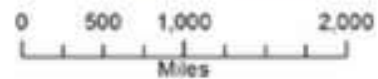


**Tropik Yağmur Ormanlarının Uçan
Bahçıvanları**

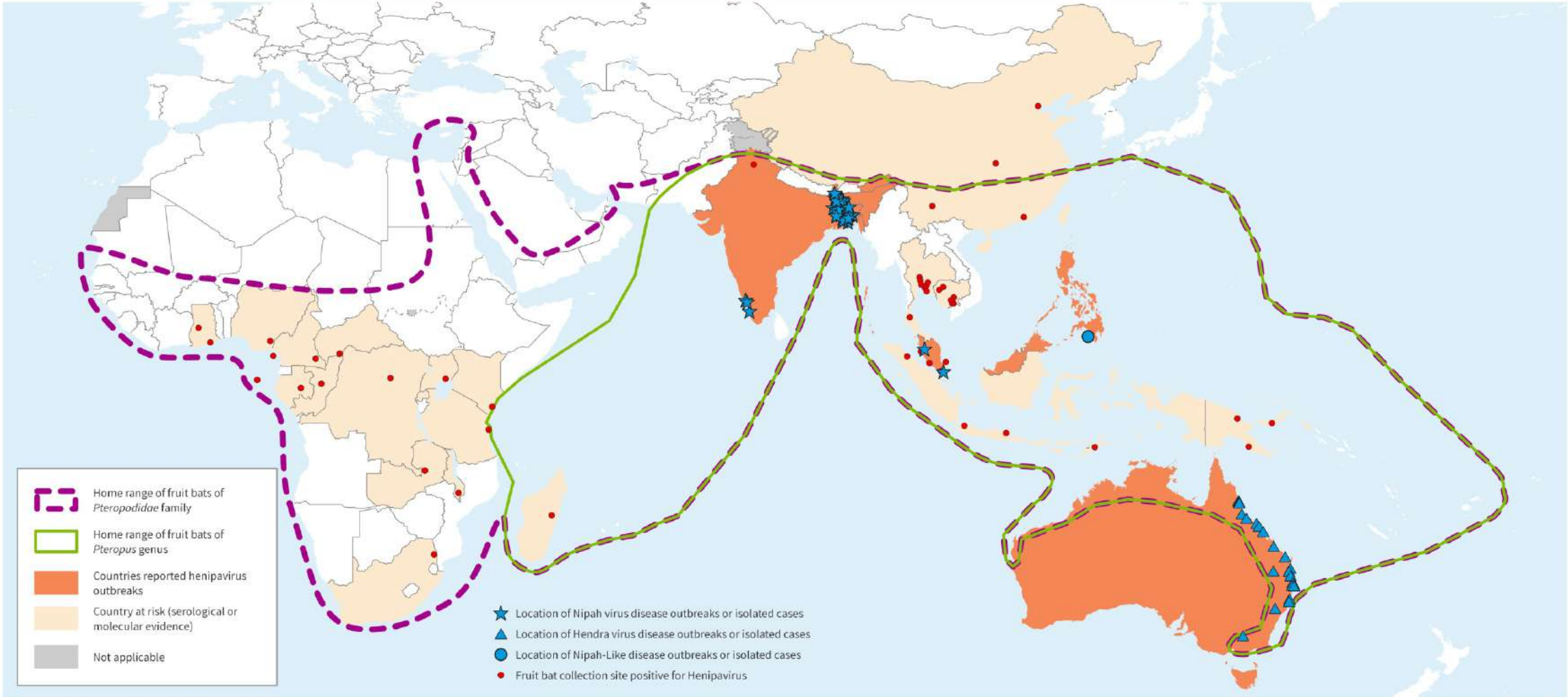


HENIPAVIRUS OUTBREAKS AND PTEROPUS DISTRIBUTION MAP

- ◆ Nipah virus Outbreak
- Hendra virus Outbreak
- ▬ Pteropus Home Range
- Countries with reported outbreak or at risk based on serological evidence or molecular detection in Pteropus bats



Geographic distribution of Henipavirus outbreaks and fruit bats of *Pteropodidae* family and *Pteropus* genus



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Data Source: World Health Organization
 Map Production: WHO Health Emergencies Programme
 Request ID: RITM00110
 Map date: 25 January 2024

Patogenez

Bulaş yolu

- Yarasadandan → Hayvana (ara konak) → İnsana
- Yarasanın çıkartılarının direkt insana bulaşması (yarasadan insana)
- İnsandan insana

Nipah Virus Transmission from Bats to Humans Associated with Drinking Traditional Liquor Made from Date Palm Sap, Bangladesh, 2011–2014

M. Saiful Islam, Hossain M.S. Sazzad, Syed Moinuddin Satter, Sharmin Sultana, M. Jahangir Hossain, Murshid Hasan, Mahmudur Rahman, Shelley Campbell, Deborah L. Cannon, Ute Ströher, Peter Daszak, Stephen P. Luby, Emily S. Gurley

Nipah virus (NiV) is a paramyxovirus, and *Pteropus* spp. bats are the natural reservoir. From December 2010 through March 2014, hospital-based encephalitis surveillance in Bangladesh identified 18 clusters of NiV infection. The source of infection for case-patients in 3 clusters in 2 districts was unknown. A team of epidemiologists and anthropologists investigated these 3 clusters comprising 14 case-patients, 8 of whom died. Among the 14 case-patients, 8 drank fermented date palm sap (*tari*) regularly before their illness, and 6 provided care to a person infected with NiV. The process of preparing date palm trees for *tari* production was similar to the process of collecting date palm sap for fresh consumption. Bat excreta was reportedly found inside pots used to make *tari*. These findings suggest that drinking *tari* is a potential pathway of NiV transmission. Interventions

encephalitis were reported in Bangladesh and India during 2001–2014, and epidemiologic investigations implicated batborne and human-to-human transmission (6,7). During 2004–2012, a total of 157 NiV infections were reported in Bangladesh, and 22% of these occurred through human-to-human transmission (8).

Investigations of NiV-associated outbreaks in Bangladesh identified consumption of fresh date palm sap as the primary route of bat-to-human transmission (1,9). In Bengali culture, sap harvested from the date palm tree is commonly used for fresh consumption and fermentation (10,11). Moreover, in Asia, Australia, and Africa, fermented date palm sap is used to make alcoholic drinks, known as toddy *tari* or palm wine (12–13). In Bangladesh, date palm

☐ Yarasadan insana bulaş

- ✓ NiV-BD
- ✓ 2010-2014 arasında
- ✓ İki ilçede 3 küme
- ✓ 14 ensefalit hasta (kaynağı bilinmeyen)
- ✓ Ekip (epidemiolog ve antropolog)
- ✓ 8 hasta Tari içmiş
- ✓ 6 hasta NiV hastaya bakım vermiş
- ✓ Tari kaplarında yarası dışkısı bulunmuş
- ☐ Sonuç
 - Tari içmek potansiyel bir bulaş yolu
 - Yarasaların tariye erişiminin engellenmesi gerekir.

□ Yarasadan insana bulaş



Tari (Palmiye şarabı/likörü)



☐ Yarasadan insana bulaş



ORIGINAL ARTICLE

Transmission of Nipah Virus — 14 Years of Investigations in Bangladesh

Birgit Nikolay, Dr.rer.nat., Henrik Salje, Ph.D., M. Jahangir Hossain, M.B., B.S., A.K.M. Dawlat Khan, M.S.S., Hossain M.S. Sazzad, M.B., B.S., Mahmudur Rahman, Ph.D., Peter Daszak, Ph.D., Ute Ströher, Ph.D., Juliet R.C. Pulliam, Ph.D., A. Marm Kilpatrick, Ph.D., Stuart T. Nichol, Ph.D., John D. Klena, Ph.D., Sharmin Sultana, M.Phil., Sayma Afroj, M.S., Stephen P. Luby, M.D., Simon Cauchemez, Ph.D., and Emily S. Gurley, Ph.D.

ABSTRACT

BACKGROUND

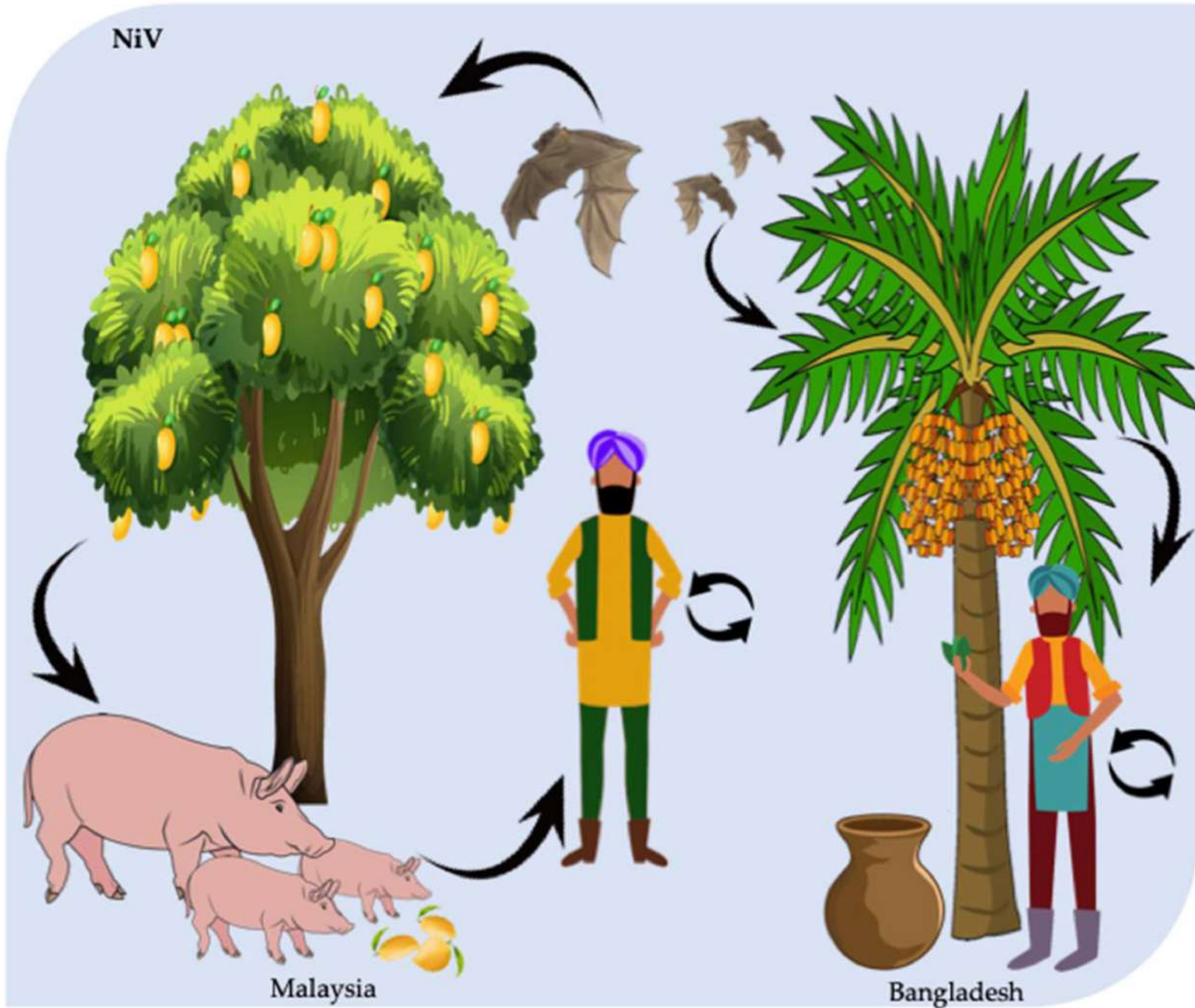
Nipah virus is a highly virulent zoonotic pathogen that can be transmitted between humans. Understanding the dynamics of person-to-person transmission is key to designing effective interventions.

METHODS

We used data from all Nipah virus cases identified during outbreak investigations in Bangladesh from April 2001 through April 2014 to investigate case-patient characteristics associated with onward transmission and factors associated with the risk of infection among patient contacts.

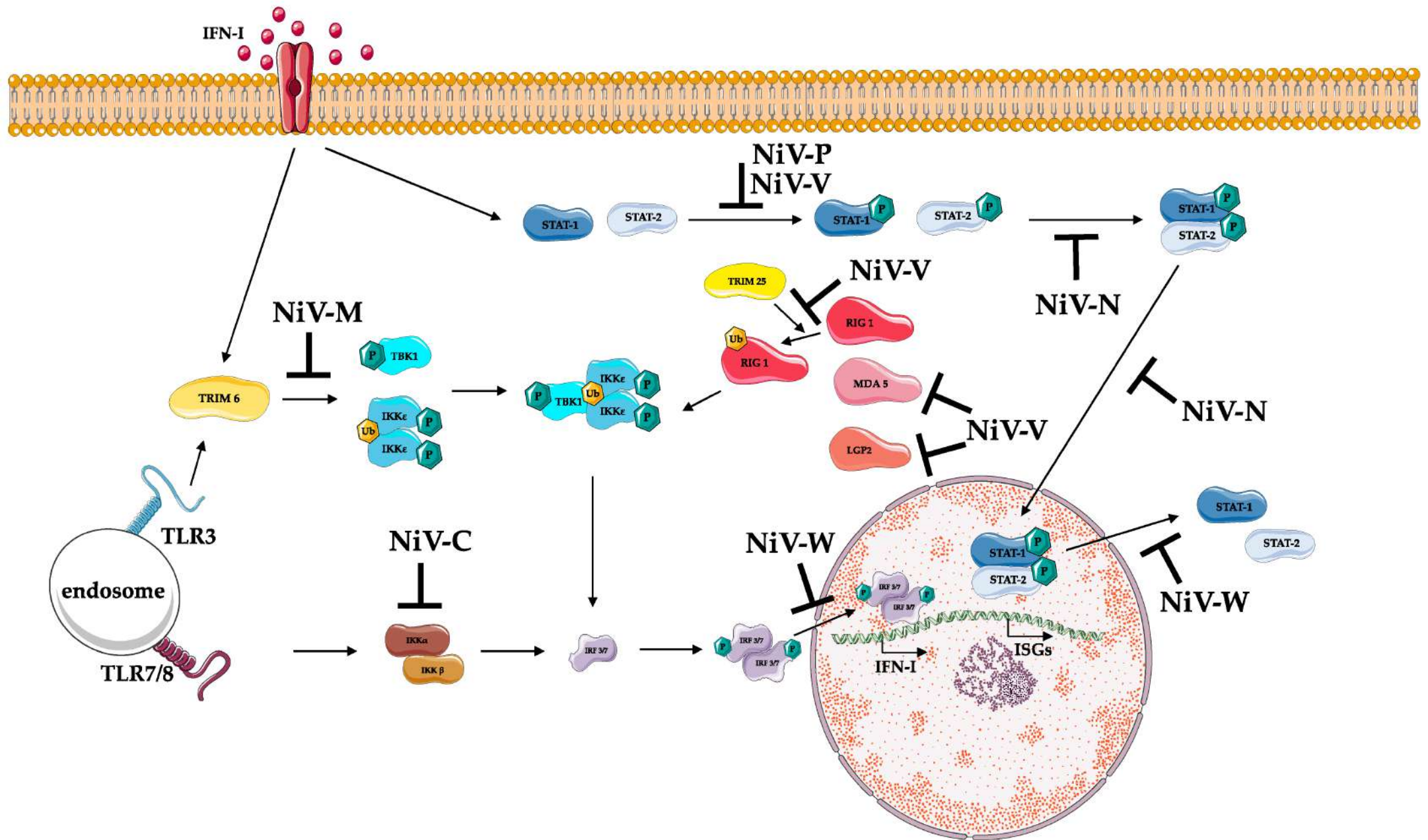
İnsandan İnsan bulaş

- ✓ Bangladeş'te 2001-2014
- ✓ 248 vaka içeren çalışma,
- ✓ Üçte biri (82) insandan insana bulaş
- ✓ %0.33 çoğalma katsayısı
- ✓ Şiddetli solunum semptomları olan hastadan
- ✓ >45 yaş
- ✓ Maruziyet süresi
- ✓ Vücut sıvılarına temas



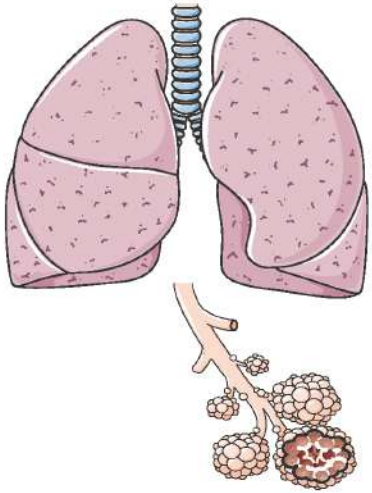
Patogenez

- Tip 1 interferon (INF-I) üretimi
- Çeşitli immunomodulasyon mekanizmaları kullanır
 - ✓ İntersiyel pnömoni
 - ✓ Sistemik Vaskülit
 - ✓ Menenjit



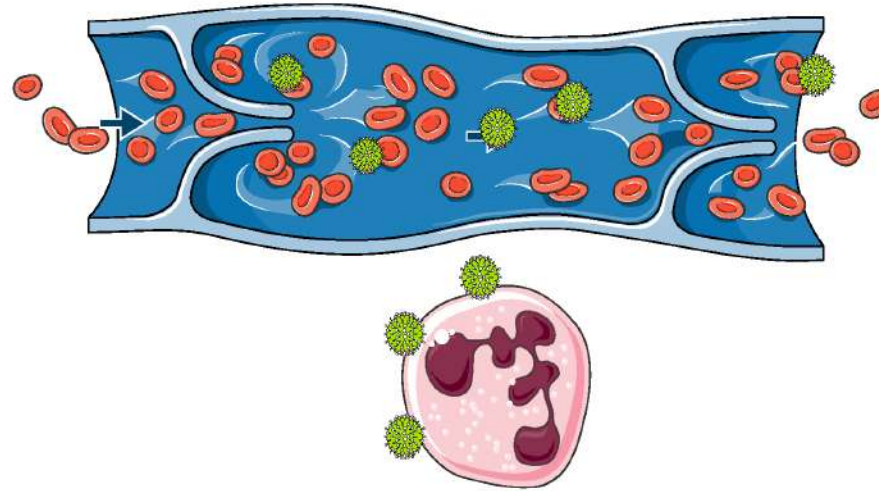
Initial stage of infection

Bronchiole, bronchi and alveoli



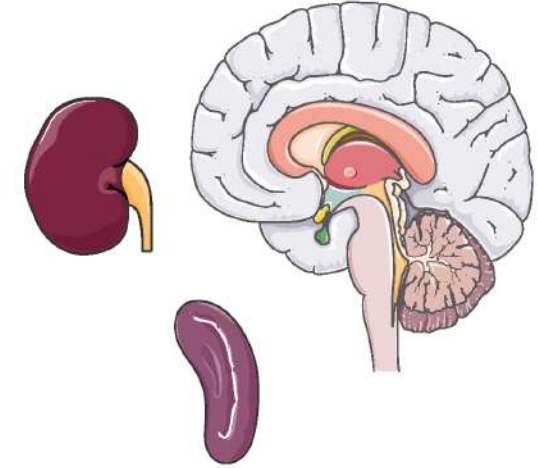
Second stage of infection

Virus dissemination



Late stage of infection

Central and peripheral organs



Immune response:

Inflammatory mediators
(IL-6, IL-8, CXCL10...)

IgM and IgG
CD8 T-cell activation

IL-1 β ,
TNF- α

Symptoms:

General cold symptoms: headache, cough, fever
Respiratory illness

Unstable blood pressure
Vasculitis

Neurological symptoms
Impairment of renal system

Klinik

- ✓ İnkübasyon süresi 5-40 gündür
- ✓ Ani başlayan ateş
- ✓ Başağrısı
- ✓ Miyalji
- ✓ Bulantı-kusma
- ✓ Meningismus (1/3 hastada. Ense sertliği ve fotofobi yaygın değil)
- ✓ Öksürük (Kerala, Bangladeş)
- ✓ Nefes darlığı (Kerala, Bangladeş)
- ✓ Kardiyak tutulum (sol ventrikül hipokinezisi, troponin yüksekliği, Kerala)

Klinik

- ✓ Hastaların yaklaşık yüzde 60'ında hastalık hızla ilerliyor, beş ila yedi gün içinde bilinç bozukluđuna yol açan koma geliřiyor.
 - Generalize nöbet (%20)
 - Segmental myoklonus
 - Serebellar disfonksiyon
 - Tremor
 - Refleks kaybı
- ✓ Sekeller (iyileřenlerde)
 - Yorgunluk
 - Gündüz uyku hali

Klinik

- Asemptomatik
- Respiratuvar sendrom
- Hafif ensefalit başlangıçlı
- Akut ensefalit
- Geç başlangıçlı nörolojik hastalık (relapsing ensefalit)
- Akut ensefalit ve respiratuvar sendrom yüksek mortalite nedeni
 - ✓ Malezya %30-40
 - ✓ Bangladeş %70
 - ✓ Hindistan 2018 %91 (23 vakadan 2 vaka yaşadı)

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CLINICAL FEATURES OF NIPAH VIRUS ENCEPHALITIS AMONG PIG FARMERS IN MALAYSIA

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PATRICK SEOW KOON TAN, F.R.C.A., ADEEBA KAMARULZAMAN, F.R.A.C.P., SAZILAH AHMAD SARJI, F.R.C.R.,
KUM THONG WONG, M.R.C.PATH., BASRI JOHAN JEET ABDULLAH, F.R.C.R., KAW BING CHUA, F.R.C.P., M.D.,
AND SAI KIT LAM, PH.D., F.R.C.P.

ABSTRACT

Background Between September 1998 and June 1999, there was an outbreak of severe viral encephalitis due to Nipah virus, a newly discovered paramyxovirus, in Malaysia.

Methods We studied the clinical features of the patients with Nipah virus encephalitis who were admitted to a medical center in Kuala Lumpur. The case definition was based on epidemiologic, clinical, cerebrospinal fluid, and neuroimaging findings.

Results Ninety-four patients with Nipah virus infection were seen from February to June 1999 (mean age, 37 years; ratio of male patients to female patients, 4.5 to 1). Ninety-three percent had had direct contact with pigs, usually in the two weeks before the onset of illness, suggesting that there was direct viral transmission from pigs to humans and a short incubation period. The main presenting features were fever, headache, dizziness, and vomiting. Fifty-two patients (55 percent) had a reduced level of consciousness and prominent brain-stem dysfunction. Distinctive clinical signs included segmental myoclonus

BETWEEN September 1998 and June 1999, there was an outbreak of febrile encephalitis in several pig-farming villages in Malaysia. More than 200 patients were admitted to hospitals nationwide, many of whom died.¹⁻³ The pig-farming industry was disrupted by the culling of many pigs to control the outbreak and the closing of farms. Several abattoir workers in neighboring Singapore were also affected.^{4,5} Japanese encephalitis, a viral encephalitis associated with pigs that is endemic in Southeast Asia, was initially suspected, but clinical and epidemiologic features suggested that a different disease was responsible.

The isolation of a new paramyxovirus, subsequently named Nipah virus, from cerebrospinal fluid specimens from several patients indicated that this was the etiologic agent.³ Preliminary studies of nucleotide sequencing revealed that this virus is closely related to, but not identical to, Hendra virus, which caused disease among horses and affected three pa-

- ✓ 94 Nipah virusu ensefaliti
- ✓ Ortalama yaş 37
- ✓ Erkek-Kadın: 4.5-1
- ✓ 93'ünde domuza direkt temas
- ✓ %50 Mekanik ventilatör ihtiyacı
- ✓ Hastalığın başlangıcı – ölüm süresi ortalama 10,3 gün (5-29)
- ✓ 30 (%32) hasta öldü
- ✓ 14 (%15) hastada kalıcı nörolojik sekel
 - 5 bitkisel hayat
 - 2 bilişsel bozukluk + bakıma muhtaç
 - 3 hafif bilişsel bozukluk
 - 2 serebellar defisit
 - 2 relaps sonrası rezidüel defisit
- ✓ 50 (%52) hasta iyileşti.

**TABLE 1. CLINICAL FEATURES
AT PRESENTATION IN PATIENTS
WITH NIPAH VIRUS INFECTION.**

FEATURE	No. OF PATIENTS (%) (N=94)
Fever	91 (97)
Headache	61 (65)
Dizziness	34 (36)
Vomiting	25 (27)
Reduced level of consciousness*	20 (21)
Nonproductive cough	13 (14)
Myalgia	11 (12)
Focal neurologic signs	10 (11)
Cerebellar signs	3 (3)
Segmental myoclonus	3 (3)
Cerebellar signs and segmental myoclonus	2 (2)
Rotatory nystagmus	1 (1)
Dysphasia	1 (1)

TABLE 3. RESULTS OF CEREBROSPINAL FLUID EXAMINATION IN PATIENTS WITH NIPAH VIRUS INFECTION.

EXAMINATION	NO. OF PATIENTS	DAY OF ILLNESS*	WHITE-CELL COUNT*	PROTEIN*	GLUCOSE*	PRESSURE*	PATIENTS WITH ABNORMAL RESULTS		
							TOTAL	ELEVATED PROTEIN LEVELS ONLY	ELEVATED WHITE-CELL COUNTS AND PROTEIN LEVELS
			cells/mm ³	g/liter	mmol/liter	cm of water	no./total no. (%)		
First	92	5.2 (2–24)	41.2 (0–842)	0.69 (0.12–2.15)	3.8 (2.0–5.5)	17.4 (3–58)	69/92 (75)	42/69 (61)	27/69 (39)
Second	31	12.1 (4–38)	59.2 (0–720)	0.90 (0.24–5.80)	3.3 (2.0–4.5)	16.1 (8–25)	24/31 (77)	13/24 (54)	11/24 (46)

*Mean values are shown, with the range in parentheses.

92 hastanın BOS bulguları

Laboratuvar

- Hemogram normal, bazen hafif trombositopeni
- Biyokimya normal bazı hastlarda hafif transaminaz yüksekliđi
- BOS
 - ✓ Pleositoz (10-800 hücre, lenfosit ađırlıklı)
 - ✓ Protein yüksekliđi (50-250mg/dl)
 - ✓ Hipoglikoraşı yok.

TABLE 4. FACTORS ASSOCIATED WITH THE PROGNOSIS OF NIPAH VIRUS INFECTION.

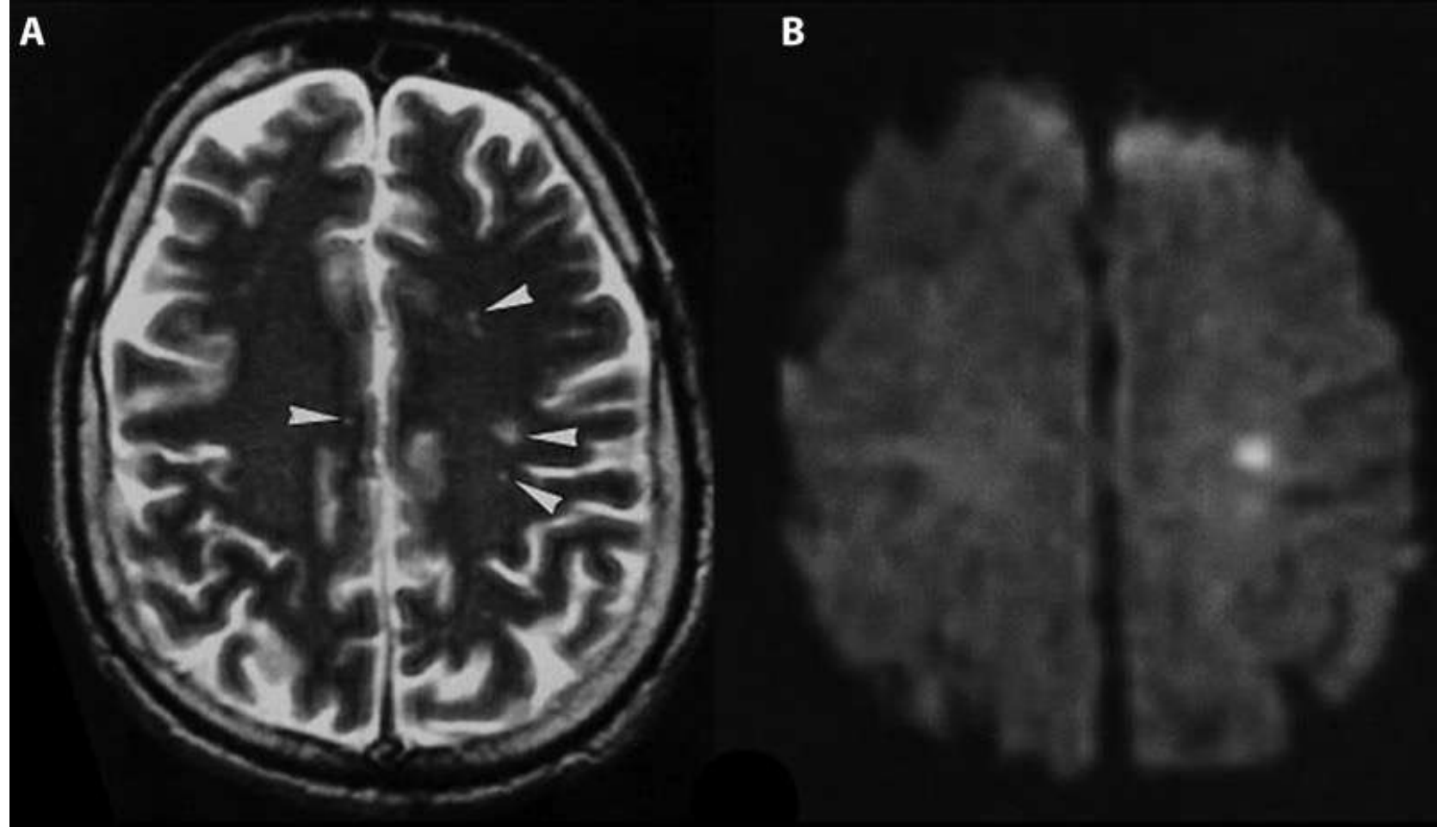
FACTOR	DEATH (N=30)	SURVIVAL (N=64)	P VALUE
Mean age — yr	40.9	35.2	0.02
Vomiting — no. (%)	12 (40)	13 (20)	0.04
Mean lowest Glasgow Coma scores	6.8	12.8	0.005
Segmental myoclonus — no. (%)	20 (67)	10 (16)	<0.001
Abnormal doll's-eye reflex — no. (%)	26 (87)	10 (16)	<0.001
Abnormal pupils — no. (%)	29 (97)	20 (31)	<0.001
Hypertension — no. (%)	23 (77)	14 (22)	<0.001
Tachycardia — no. (%)	28 (93)	8 (12)	<0.001
Absent or reduced reflexes — no. (%)	22 (73)	31 (48)	0.02
Seizures — no. (%)	12 (40)	10 (16)	0.01
Mean aspartate aminotransferase level at admission — U/liter	87	34.4	0.001
Mean alanine aminotransferase level at admission — U/liter	94.2	53.6	0.006
Mean platelet count at admission — per mm ³	151,000	197,000	0.005

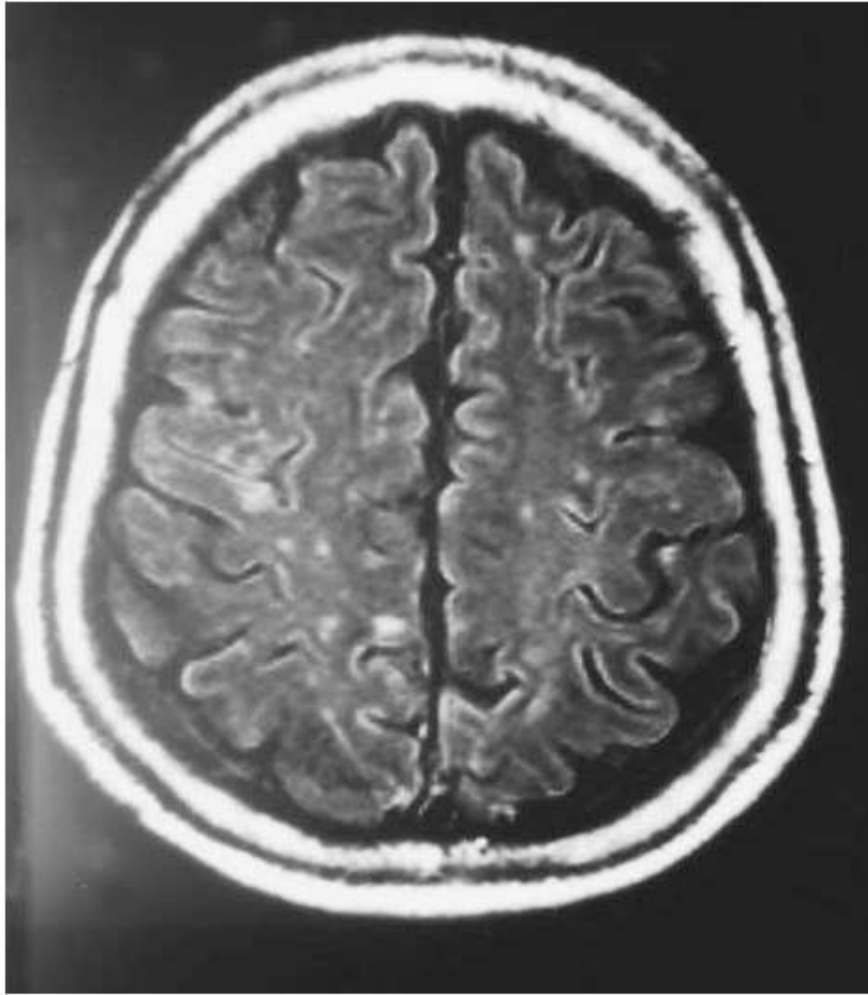
Prognozla ilişkili faktörler

- ✓ Normal dışı pupiller
- ✓ Hipertansiyon
- ✓ Trombositopeni
- ✓ Transaminaz yüksekliği

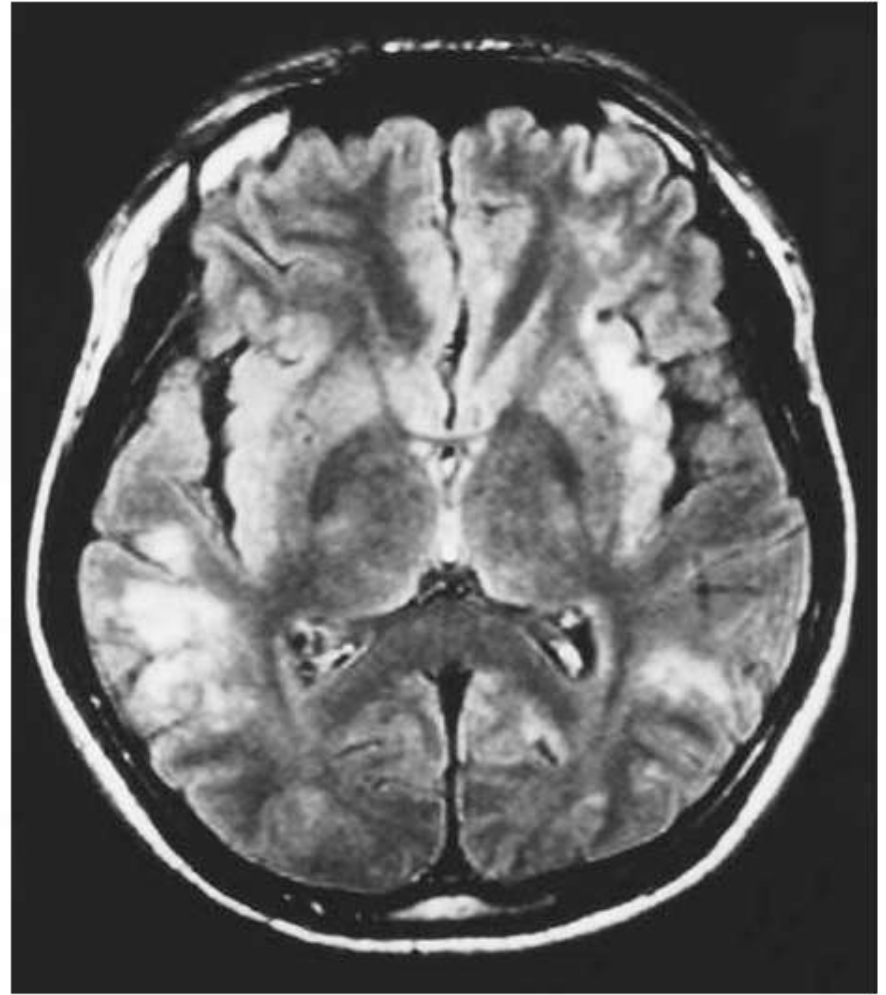
Laboratuvar

- MR'da birden çok <5mm asimetric fokal lezyonlar





A



B

Figure 1. Axial MRI Findings in Patients with Acute (Panel A) and Relapsed (Panel B) Nipah Virus Encephalitis with Use of Fluid-Attenuated Inversion Recovery.

In Panel A, an image of the brain of a patient with acute Nipah virus encephalitis shows multiple discrete hyperintense lesions in the white and gray matter. In Panel B, an image of the brain of a patient with relapsed Nipah virus encephalitis shows confluent lesions involving primarily the cortical gray matter.

Tanı

- Virus boğaz, burun, doku, kan ve BOS örneklerinden izole edilmiştir
- PCR (Erken dönemde boğaz, burun, BOS ve kandan)
- Seroloji (ELISA)
 - ✓ IgM
 - ✓ IgG
 - ✓ Konfirmasyon Nötrolizan antikor testleri

Tedavi

- ❖ Destek tedavisi
- ❖ Antiviral tedavi
 - Ribavirin (Hayvan modellerinde etkisiz)
- ❖ Aşı (mRNA)
- ❖ Monoklonal antikor

Found 1 result for 11409437

[Save](#)[Email](#)[> Ann Neurol.](#) 2001 Jun;49(6):810-3. doi: 10.1002/ana.1062.

Treatment of acute Nipah encephalitis with ribavirin

H T Chong¹, A Kamarulzaman, C T Tan, K J Goh, T Thayaparan, S R Kunjapan, N K Chew, K B Chua, S K Lam

Affiliations [+](#) expand

PMID: 11409437 DOI: [10.1002/ana.1062](#)

Abstract

Nipah virus, a newly identified paramyxovirus caused a severe outbreak of encephalitis in Malaysia with high fatalities. We report an open-label trial of ribavirin in 140 patients, with 54 patients who were managed prior to the availability of ribavirin or refused treatment as control. There were 45 deaths (32%) in the ribavirin arm; 29 deaths (54%) occurred in the control arm. This represents a 36% reduction in mortality ($p = 0.011$). There was no associated serious side effect. This study suggests that ribavirin is able to reduce the mortality of acute Nipah encephalitis.

- Ribavirin 140 hasta
- Kontrol 54 hasta
- Ribavirin kolunda ölüm 45(%32)
- Kontrol kolunda ölüm 29 (%54)
- Sonuç: Ribavirin mortaliteyi azaltabilir.

	Overall (n=749)	Malaysia (n=283)	Singapore (n=11)	Bangladesh (n=322)	India (n=116)	Philippines (n=17)
Number of deaths	415	109	1	226	70	9
Crude case-fatality rate, %	55%	39%	9%	70%	60%	53%
Country-adjusted case-fatality rate, %	71%	40%	9%	77%	78%	53%
Case type						
Confirmed case	451/573 (79%)	275/275 (100%)	11 (100%)	73/154 (47%)	89 (77%)	3 (18%)
Probable case	122/573 (21%)	0	0	81/154 (53%)	27 (23%)	14 (82%)
Laboratory methods						
Serological methods	285/407 (70%)	191/275 (69%)	10 (91%)	75/84 (89%)	7/34 (21%)	2/3 (67%)
PCR	38/407 (9%)	0	1 (9%)	9/84 (11%)	27/34 (79%)	1/3 (33%)
Viral culture	84/407 (21%)	84/275 (30.6%)	0	0	0	0
Sex						
Male	391/530 (74%)	231 (82%)	11 (100%)	112/189 (59%)	21/30 (70%)	16 (94%)
Female	139/530 (26%)	52 (18%)	0	77/189 (41%)	9/30 (30%)	1 (6%)
Age group						
0–14 years	24/402 (6%)	12 (4%)	0	11/58 (19%)	1/33 (3%)	0
15–59 years	358/402 (89%)	259 (92%)	11 (100%)	44/58 (76%)	28/33 (85%)	16 (94%)
≥60 years	20/402 (5%)	12 (4%)	0	3/58 (5%)	4/33 (12%)	1 (6%)
Occupation						
Medical staff	10/351 (3%)	0	0	1/48 (2%)	7/15 (47%)	2/9 (22%)
Livestock practitioner	238/351 (68%)	219/268 (82%)	11 (100)	0	1/15 (7%)	7/9 (78%)
Farmer	42/351 (12%)	0	0	38/48 (79%)	4/15 (27%)	0
Soldier or policeman	7/351 (2%)	6/268 (2%)	0	1/48 (2%)	0	0
Student	12/351 (3%)	9/268 (3%)	0	2/48 (4%)	1/15 (7%)	0
Driver	23/351 (7%)	19/268 (7%)	0	3/48 (6%)	1/15 (7%)	0
Houseworker	17/351 (5%)	15/268 (6%)	0	1/48 (2%)	1/15 (7%)	0
Businessperson	2/351 (1%)	0	0	2/48 (4%)	0	0
Contact history						
Animals	336/489 (69%)	265/265 (100%)	11 (100%)	49/152 (32%)	1/46 (2%)	10/15 (67%)
Pigs	276/489 (56%)	265/265 (100%)	11 (100%)	0	0	0
Bats	5/489 (1%)	0	0	4/152 (3%)	1/46 (2%)	0
Horses	10/489 (2%)	0	0	0	0	10/15 (67%)
Cats	7/489 (1%)	0	0	7/152 (5%)	0	0
Dogs	14/489 (3%)	0	0	14/152 (9%)	0	0
Cows	14/489 (3%)	0	0	14/152 (9%)	0	0
Goats	2/489 (<1%)	0	0	2/152 (1%)	0	0
Chickens	5/489 (1%)	0	0	5/152 (3%)	0	0
Ducks	3/489 (1%)	0	0	3/152 (2%)	0	0
Patients	127/489 (26%)	0	0	78/152 (51%)	44/46 (96%)	5/15 (33%)
Palm-associated	26/489 (5%)	0	0	25/152 (16%)	1/46 (2%)	0
Exposure site						
Community	433/477 (91%)	283 (100%)	11 (100%)	114/118 (97%)	10/48 (21%)	15/17 (88%)
Hospital	44/477 (9%)	0	0	4/118 (3%)	38/48 (79%)	2/17 (12%)

Data are n, %, or n (%). Percentages might not total 100 owing to rounding.

Table 1: Epidemiological features of Nipah virus infections in humans, 1998–2021

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Female	139/530 (26%)	52 (18%)	0	77/189 (41%)	9/30 (30%)	1 (6%)
Age group						
0–14 years	24/402 (6%)	12 (4%)	0	11/58 (19%)	1/33 (3%)	0
15–59 years	358/402 (89%)	259 (92%)	11 (100%)	44/58 (76%)	28/33 (85%)	16 (94%)
≥60 years	20/402 (5%)	12 (4%)	0	3/58 (5%)	4/33 (12%)	1 (6%)
Occupation						

Occupation						
Medical staff	10/351 (3%)	0	0	1/48 (2%)	7/15 (47%)	2/9 (22%)
Livestock practitioner	238/351 (68%)	219/268 (82%)	11 (100)	0	1/15 (7%)	7/9 (78%)
Farmer	42/351 (12%)	0	0	38/48 (79%)	4/15 (27%)	0
Soldier or policeman	7/351 (2%)	6/268 (2%)	0	1/48 (2%)	0	0
Student	12/351 (3%)	9/268 (3%)	0	2/48 (4%)	1/15 (7%)	0
Driver	23/351 (7%)	19/268 (7%)	0	3/48 (6%)	1/15 (7%)	0
Houseworker	17/351 (5%)	15/268 (6%)	0	1/48 (2%)	1/15 (7%)	0
Businessperson	2/351 (1%)	0	0	2/48 (4%)	0	0

Contact history						
Animals	336/489 (69%)	265/265 (100%)	11 (100%)	49/152 (32%)	1/46 (2%)	10/15 (67%)
Pigs	276/489 (56%)	265/265 (100%)	11 (100%)	0	0	0
Bats	5/489 (1%)	0	0	4/152 (3%)	1/46 (2%)	0
Horses	10/489 (2%)	0	0	0	0	10/15 (67%)
Cats	7/489 (1%)	0	0	7/152 (5%)	0	0
Dogs	14/489 (3%)	0	0	14/152 (9%)	0	0
Cows	14/489 (3%)	0	0	14/152 (9%)	0	0
Goats	2/489 (<1%)	0	0	2/152 (1%)	0	0
Chickens	5/489 (1%)	0	0	5/152 (3%)	0	0
Ducks	3/489 (1%)	0	0	3/152 (2%)	0	0
Patients	127/489 (26%)	0	0	78/152 (51%)	44/46 (96%)	5/15 (33%)
Palm-associated	26/489 (5%)	0	0	25/152 (16%)	1/46 (2%)	0

Exposure site						
Community	433/477 (91%)	283 (100%)	11 (100%)	114/118 (97%)	10/48 (21%)	15/17 (88%)
Hospital	44/477 (9%)	0	0	4/118 (3%)	38/48 (79%)	2/17 (12%)

Önleyici faaliyetler

- ❖ Yarasadan çiftlik hayvanlarına → Karantina, çiftlikler arası hareket kısıtlaması
- ❖ Yarasadan insana → Tari → Gelenek ve inançlar, hassasiyet
- ❖ Ara konaktan insana → Eldiven kullanımı
- ❖ Sağlık çalışanına bulaş → Standart infeksiyon kontrol önlemleri + temas + damlacık

Hendra virus

- Doğal konak → Meyve yarasaları
- Ara konak → At
- Attan insana bulaş gösterildi.
- Yarasadan insana bulaş gösterilmedi
- İnsandan insana bulaş gösterilmedi
- 1994 yılında Avustralya Queensland salgını

Infection of humans and horses by a newly described morbillivirus

L A Selvey ¹, R M Wells, J G McCormack, A J Ansford, K Murray, R J Rogers, P S Lavercombe, P Selleck, J W Sheridan

Affiliations + expand

PMID: 7603375 DOI: 10.5694/j.1326-5377.1995.tb126050.x

Abstract

Objective: To describe the clinical and epidemiological features of an outbreak of a viral infection affecting humans and horses.

Setting: Stables in Hendra, a suburb of Brisbane.

Subjects: Affected horses and humans, and at-risk human contacts.

Results: A pregnant mare died two days after arrival from a paddock elsewhere in Brisbane. Eight to 11 days later, illness (depression, anorexia, fever, dyspnoea, ataxia, tachycardia, tachypnoea and nasal discharge) was reported among 17 other horses from the same or an adjoining stable. Fourteen horses died or were put down. Five and six days after the index mare's death, a stable-hand and then a horse-trainer, both of whom had had close contact with the sick mare's mucous secretions, developed influenza-like illnesses. The stable-hand recovered but the trainer developed pneumonitis, respiratory failure, renal failure and arterial thrombosis, and died from a cardiac arrest seven days after admission to hospital. A morbillivirus cultured from his kidney was identical to one isolated from

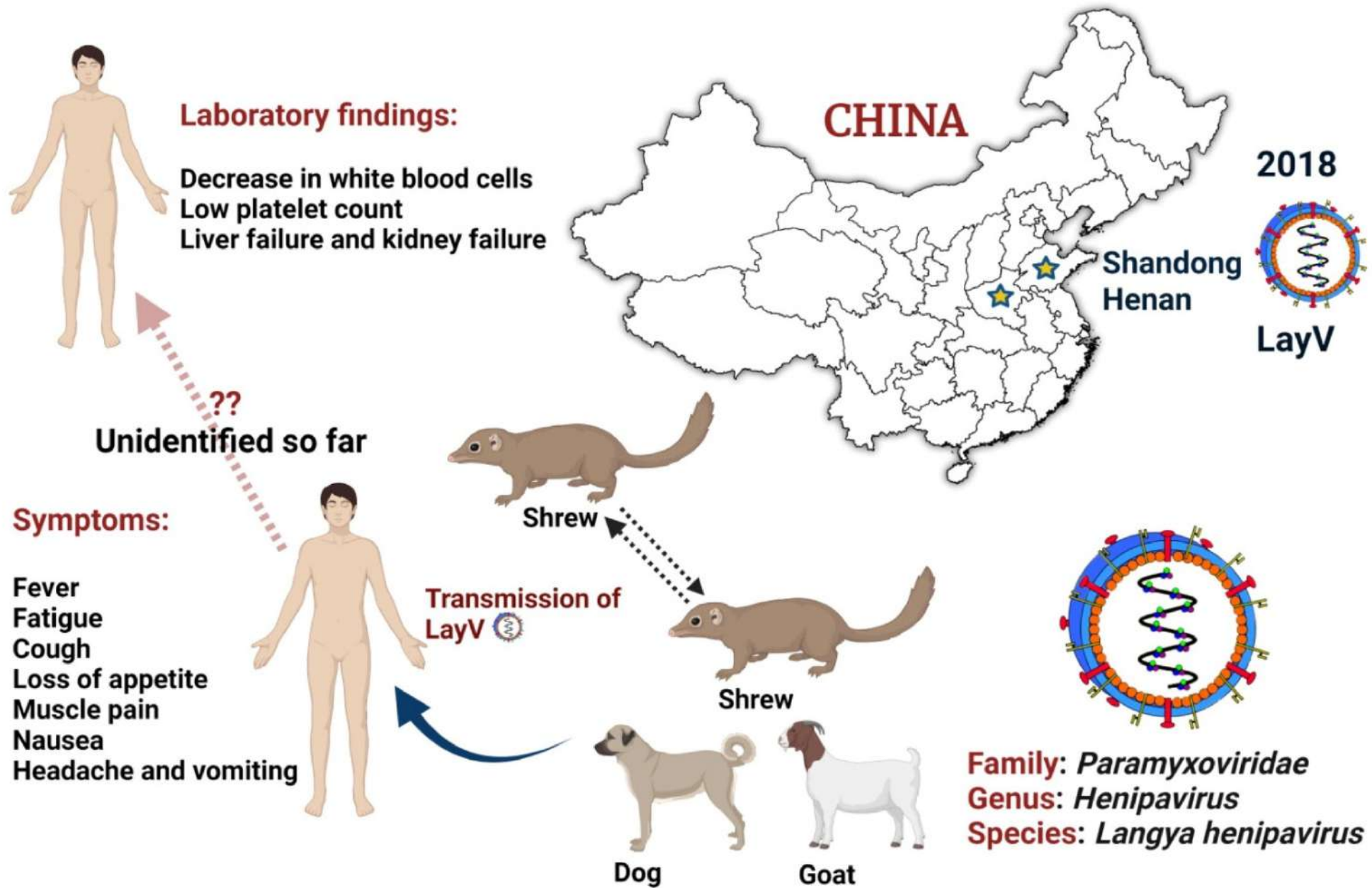
- 21 at
- 2 insan
- 7 at ölümü
- 1 insan ölümü
- Hasta hayvanların sekresyonuna temas
- Grip benzeri semptomlar
- Pnömoni
- Solunum yetmezliği

Klinik

- 100 at infeksiyonu
- 7 insan infeksiyonu (4'ü ölüm)
- Pnömoni (1 kişi)
- Hafif meningoensefalit (3 kişi) → nöbet, koma → ölüm
- Tanı:
 - ✓ ELISA
 - ✓ PCR
- Tedavi
 - Destek

Langya Henipavirus

- 2019 yılında Çin salgını
- Henan ve Shandong eyaletlerinde
- 35 kişi
- Ateş, miyalji, iştahsızlık, baş ağrısı, bulantı ve kusma
- Lökopeni, trombositopeni
- Böbrek/karaciğer yetmezliği
- Ölen yok
- Rezervuar → Fare





KLİMİK

TÜRK KLİNİK MİKROBİYOLOJİ VE
İNFEKSİYON HASTALIKLARI DERNEĞİ

Bilimle Sağlıkla
38.YIL

DERNEK

YETERLİK
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YA

HABERLER »

HİNDİSTAN'DA YETKİLİLER, ÖLÜMCÜL NİPAH VİRUSU SALGININI KONTROL ALTINA ALMAK İÇİN ZAMANLA YARIŞIYOR



7 Eylül 2021

©CBSNEWS Hindistan'ın güneyindeki Kerala eyaletinde yetkililer, Nipah virusu salgınına kontrol altına almak için zamanla yarışıyor. Mevcut küresel pandeminin nedeni olan koronavirüs ile ilişkili olmamakla birlikte çok daha ölümcül olan virus, hafta sonu Kerala'da 12 yaşındaki bir çocuğun ölümüne neden olarak, temaslı izleme çalışmalarını hızlandırdı. Yeni infeksiyonlar doğrulandı.

Çocuk bir hafta önce yüksek ateşle hastaneye kaldırıldı. Durumu kötüleşince ve doktorlar beyninin iltihaplanmasından (ensefalit) şüphelenince, kan örnekleri Ulusal Viroloji Enstitüsü'ne gönderildi; testler Nipah infeksiyonunu doğruladı. Çocuk Pazar günü erken saatlerde hayatını kaybetti.



KLİMİK

TÜRK KLİNİK MİKROBİYOLOJİ VE
İNFEKSİYON HASTALIKLARI DERNEĞİ

Bilimle Sağlıkla
38.YIL

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HABERLER »

HİNTLİ YETKİLİLER KERALA'DAKİ ÖLÜMCÜL NİPAH VİRUSU SALGININI KONTROL ALTINA ALMAK İÇİN ACELE EDİYOR



14 Eylül 2023

CNN Güney Hindistan'ın bir eyaleti Kerala'da nadir görülen ve sıklıkla ölümcül olan Nipah virusu nedeniyle iki kişinin ölmesinin ardından salgını kontrol altına almak için önlemler alınıyor; okullar kapatılıyor ve hastalığın yayılmasını önlemek için yüzlerce kişiye test yapılıyor.

Kerala başbakanı Pinarayi Vijayan, virusun eyaletin Kozhikode bölgesinde tespit edildiğini söyleyerek bölge sakinlerini dikkatli olmaya ve sağlık departmanının güvenlik kurallarına uymaya çağırdı.

Çarşamba günü yaptığı açıklamada, eyalette 2018'den bu yana görülen dördüncü salgında iki kişinin öldüğünü söyledi. Vijayan, sosyal medyada "Korkmamalıyız, ancak bu durumla dikkatle yüzleşmeliyiz" diye yazdı.

HABERLER »

HİNDİSTAN'DA ÖLÜMCÜL VİRUS ALARMI: 14 YAŞINDAKİ ÇOCUK HAYATINI KAYBETTİ



22 Temmuz 2024

Hindistan'da 14 yaşındaki bir çocuğun Nipah virusu nedeniyle ölmesi, Kerala'daki sağlık yetkililerini alarma geçirdi; 214 kişi yüksek risk altında.

Hindistan'ın Kerala eyaletinde Pandikkad bölgesinde 14 yaşındaki bir çocuğun, ölüm oranı yüksek ve bulaşıcı Nipah virusundan dolayı hayatını kaybetmesi, bölgedeki sağlık yetkililerini ve halkı endişelendirdi.

Kerala Eyaleti Sağlık Bakanı Veena George, ölümün ardından yapılan açıklamada, "Sevgili oğullarını kaybeden ailenin acısını paylaşıyoruz ve Nipah virusunun yayılmasını önlemek için tüm önlemleri alıyoruz," dedi.

Sağlık yetkilileri, ölen çocuğun birincil temas listesinde 214 kişiyi tespit etti ve bunların 60'ını yüksek risk kategorisinde değerlendirdi.

HABERLER »

HİNDİSTAN'IN KERALA EYALETİNDE NİPAH VİRUSUNDAN BİR KİŞİ ÖLDÜ; BU YIL İKİNCİ ÖLÜM



16 Eylül 2024

REUTERS Yerel bir sağlık görevlisinin pazartesi günü yaptığı açıklamaya göre, güney Hindistan'ın Kerala eyaletinde 24 yaşında bir öğrenci Nipah virusundan öldü ve kurbanla temas eden 151 kişi ölümcül virusun yayılmasını önlemek için gözlem altında tutuluyor.

Bu, Temmuz ayından bu yana Kerala'da Nipah'ın neden olduğu ikinci ölüm. Nipah, bir salgın tetikleme potansiyeli nedeniyle Dünya Sağlık Örgütü (DSÖ) tarafından öncelikli patojen olarak sınıflandırılıyor. Enfeksiyonu önleyecek aşı ve tedavi edecek ilaç bulunmuyor.

Araştırmalar Kerala'nın bazı bölgelerinin Nipah virusu salgınları açısından küresel olarak en fazla risk altında olan yerler arasında olduğunu göstermektedir. Meyve yarasalarından ve domuz gibi hayvanlardan edinilen Nipah, insanlarda ölümcül olan ve beyni ödemeine yol açan ateşe neden olabilir.