

B) or 37997-GFP-226A and 37997-GFP-226V viruses derived from electroporation at a MOI of 0.1. At the indicated times post-infection, 0.5 ml of medium was removed and stored at -80°C for later titration on Vero cells. Viral titers are expressed as $\text{Log}_{10}\text{TCID}_{50}/\text{ml}$.

Found at doi:10.1371/journal.ppat.0030201.sg002 (372 KB PDF).

Figure S3. Growth of the CHIK-LR ic, LR-ApaI-226V and LR-226A Viruses in BHK-21(A) and C6/36 (B) Cells

Confluent monolayers of BHK-21 and C6/36 cells in T25 tissue culture flasks were infected with LR-GFP-226V and LR-GFP-226A (A, B) or 37997-GFP-226A and 37997-GFP-226V viruses derived from electroporation at a MOI of 1.0. At the indicated times post-infection, 0.5 ml of medium was removed and stored at -80°C until titrated on Vero cells. Viral titers are expressed as $\text{Log}_{10}\text{TCID}_{50}/\text{ml} \pm$ standard deviation of three independent experiments.

hpi - hours post-infection.

Found at doi:10.1371/journal.ppat.0030201.sg003 (177 KB PDF).

Figure S4. Competition between CHIK-LR ic and LR-ApaI-226V for Growth in BHK-21 and C6/36 Cells

Cells were infected with a 1:1 mixture of both viruses at a MOI of 0.001. 2 dpi, cell culture supernatant was collected and samples proceeded as described. The experiment was repeated three times for each of the cell types.

inoc - initial ratio of CHIK-LR ic and LR-ApaI-226V in the inoculum used for infection of cells.

Relative fitness (RF) of CHIK-LR ic and LR-ApaI-226V was calculated as an average ratio between CHIK-LR ic and LR-ApaI-226V bands in the supernatant obtained from BHK-21 cells (RF_1) and C6/36 cells (RF_2), divided by the control ratio between CHIK-LR ic and LR-ApaI-226V in the inoculum.

Found at doi:10.1371/journal.ppat.0030201.sg004 (3.6 MB PDF).

Table S1. Specific Infectivity and Virus Titers after Electroporation

a - amino acids at position of E1-226.

b - Specific infectivity of *in vitro* transcribed RNA. 10^7 BHK-21 cells were transfected with $10 \mu\text{g}$ of RNA. Electroporated BHK-21 cells were 10-fold serially diluted, seeded in 6-well tissue culture plates

containing 5×10^5 naive BHK-21 cells per well and covered with 0.5% agarose in L-15. Plaques were scored on day 2 post-transfection.

c - Supernatants of electroporated BHK-21 cells were collected on days 1 and 2. Virus titers were determined by titration on Vero cells and expressed as $\text{Log}_{10}\text{TCID}_{50}/\text{ml}$.

hpi - hours post-infection.

Found at doi:10.1371/journal.ppat.0030201.st001 (34 KB DOC).

Table S2. Infection Rates and Average Titers of CHIKV-LR ic or LR-ApaI-226V in Orally Infected *Ae. aegypti* and *Ae. albopictus*

Ae. aegypti mosquitoes were orally presented with $7.24 \pm 0.4 \text{ Log}_{10}\text{TCID}_{50}/\text{ml}$ of CHIKV-LR ic (summary of two experiments) and $6.52 \text{ Log}_{10}\text{TCID}_{50}/\text{ml}$ of LR-ApaI-226V.

Ae. albopictus mosquitoes were orally presented with $7.24 \pm 0.4 \text{ Log}_{10}\text{TCID}_{50}/\text{ml}$ of CHIKV-LR ic (summary of two experiments) and $7.52 \text{ Log}_{10}\text{TCID}_{50}/\text{ml}$ LR-ApaI-226V.

At 7 and 14 dpi, mosquitoes were collected and triturated in 1 mL of L-15 medium for titration on Vero cells.

Titers are reported as $\text{Log}_{10}\text{TCID}_{50}/\text{ml} \pm$ standard deviation.

Found at doi:10.1371/journal.ppat.0030201.st002 (31 KB DOC).

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Author contributions. KAT and SH conceived and designed the experiments. KAT, DLV, and CEM performed the experiments and analyzed the data. KAT, DLV, CEM, and SH wrote the paper.

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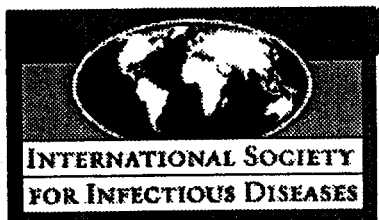
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医薬品 研究報告 調査報告書

識別番号・報告回数		報告日	第一報入手日 2007. 10. 5	新医薬品等の区分 該当なし	機構処理欄
一般的名称	人赤血球濃厚液	研究報告の公表状況	ProMED 20071001-3237, 2007 Oct 1. 情報源:[1]China Daily, Xinhua News Agency report, 2007 Sep 30. [2]VietNamNet Bridge, 2007 Sep 26 [3]Daily Times, 2007 Sep 27. [4]Associated Press, 2007 Sep 29.	公表国	
販売名(企業名)	赤血球濃厚液-LR「日赤」(日本赤十字社) 照射赤血球濃厚液-LR「日赤」(日本赤十字社)		[1]中国[2]ベトナム[3]パキスタン[4]汎米保健機構		
研究報告の概要	<p>○デングウイルス最新情報</p> <p>[1]中国(福建省):9月30日、保健当局は福建省莆田市でデング熱症例39例を確認したと発表した。感染拡大を防ぐ為の総合的予防対策が実施され、医療機関でのモニタリングが強化されている。市民には、蚊の増殖を防ぐ為に衛生状態改善が呼びかけられている。</p> <p>[2]ベトナム:2007年のデング熱発生件数は、昨年と比べて50%増加したと保健省が報告した。9月24日時点で患者68,000人が報告され、60人が死亡した。感染例のほとんどは南部で発生している。患者は通常10歳以下の子どもが多いが、2007年は成人患者も増加している。</p> <p>[3]パキスタン(カラチ):保健省のデング熱サーベイランス班によると、カラチ市の4つの病院で22例の新規デング熱疑い症例が報告された。うち20人が陽性、2人が検査中となっている。2007年はこれまでに170例の疑い症例が報告された。</p> <p>[4]ラテンアメリカ:デング熱がラテンアメリカとカリブ海諸国に感染拡大しており、この10年で最も深刻な事態になっている。2007年はこれまでに630,356人の患者が主にブラジル・ベネズエラ・コロンビアから報告され、うち12,147人が出血熱を発症、183人が死亡した。このまま拡大が続けば2002年の1,015,000例を超える可能性がある。流行が沈静化しないと社会的、経済的に大きな影響が出るだろうと汎米保健機構の専門家は述べている。観光や移住によって4系統のウイルス株が地域内で循環しているために、患者が重症化しやすくなっていると考えられている。</p>				使用上の注意記載状況・ その他参考事項等
報告企業の意見		今後の対応			
中国福建省、ベトナム、パキスタン、ラテンアメリカでデング熱が流行しているとの報告である。		日本赤十字社では、輸血感染症対策として問診時に海外渡航歴の有無を確認し、帰国(入国)後4週間は献血不適としている。問診でデング熱の既往があった場合には、治癒後1ヶ月間献血不可としている。今後も引き続き情報の収集に努める。			

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Home

Subscribe/Unsubscribe

Search Archives

Announcements

Recalls/Alerts

Calendar of Events

Maps of Outbreaks

Submit Info

FAQs

Who's Who

Awards

Citing ProMED-mail

Links

Donations

About ProMED-mail

Back

Archive Number 20071001.3237

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Subject PRO/EDR> Dengue/DHF update 2007 (37)

DENGUE/DHF UPDATE 2007 (37)

A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the
International Society for Infectious Diseases

<<http://www.isid.org>>

In this update:

- [1] China (Fujian)
- [2] Viet Nam
- [3] Pakistan (Karachi)
- [4] Latin America

[1] China (Fujian)

Date: Sun 30 Sep 2007

Source: China Daily, Xinhua News Agency report [edited]

<http://www.chinadaily.com.cn/china/2007-09/30/content_6149071.htm>

On Sunday [30 Sep 2007], health authorities said 39 dengue fever cases have been confirmed in Putian City of east China's Fujian Province. Thus far, 26 of the 39 patients in Hanjiang District of Putian City have been cured and the others are in stable condition, said the provincial health department.

The city has adopted "comprehensive prevention and control measures" to curb the spread of the disease, said the department. All medical and health institutions in the province have also strengthened monitoring on the disease, it added.

The department reminded citizens of household sanitation and the prevention of proliferation of mosquitoes, which transmit the disease [v us]

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[Putian City is situated in the central part of the coastal area of Fujian Province. Putian neighbors Fuzhou in the northeast and Quanzhou in the southeast, and is separated from Taiwan by the Taiwan Strait.

[A zoomable map of Fujian Province showing the location of Putian city can be accessed at
<http://encarta.msn.com/map_701510630/Fujian.html>. - Mod.TY]

[2] Viet Nam

Date: Wed 26 Sep 2007

Source: VietNamNet Bridge [edited]

<<http://english.vietnamnet.vn/social/2007/09/745035/>>

The incidence of dengue fever in Viet Nam has risen by almost 50 percent this year [2007] against last year [2006], reports the Health Ministry.

A medical worker instructs Dao ethnic minorities in the northern mountainous province of Thanh Binh's Quang Minh Commune to dip mosquito

nets in chemicals to prevent dengue fever.

About 68 000 people had been stricken with the mosquito-borne disease, Preventative Health Department director Nguyen Huy Nga said on Monday [24 Sep 2007]; 60 had died.

Most infections had occurred in southern Dong Thap, An Giang, Tien Giang, and Ben Tre provinces and the total increase was about 48 percent, he said.

Ho Chi Minh [HCM] City-based Pasteur Institute National Dengue Fever Programme representative Luong Chan Quang said more than 58 000 people had been infected in the Cuu Long (Mekong) Delta provinces by the end of August [2007]. Deaths were put at 54-40 percent more than last year [2006].

Infections in Tien Giang Province totalled 9800 with 9 deaths, Dong Thap 8700 with 9 deaths, and An Giang 6000 with 6 deaths.

In HCM City, almost 5400 people had been stricken with dengue fever -- 40 percent more than last year [2006 -- and 6 had died.

Quang warned that another serious outbreak was likely in the southern delta before the end of the year [2007] if effective preventive measures were not taken because people regularly stored water to prepare for the dry season.

The Aedes mosquito, which carries dengue fever, breeds in still or stagnant water.

HCM City Preventive Health Department deputy director Nguyen Dac Tho said about 350 people were being admitted to hospital each week with dengue fever -- 50 more than last year [2006].

Inner city districts 8, 10, 11, Binh Thanh, and Binh Tan were the worst affected. People in densely populated precincts stored more water for their own use than others as did construction projects, said Dr Tho.

Dengue fever is most common among children under 10 but the number of afflicted adults has increased this year [2007].

HCM City Tropical Diseases Hospital figures show that of about 150 people admitted to the hospital with dengue fever each week, more than 100 were adults.

There are 4 types of the dengue fever virus that often result in similar symptoms. This year [2007], the transmitted virus was usually type 1 or type 2.

Haemorrhagic fever is a severe, often fatal, complication of dengue fever.

The HCM City People's Committee has mobilised measures to prevent dengue fever across the city. Citizens are encouraged to clean around their residences every Sunday and spray mosquito killer [insecticides].

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[A map of Viet Nam can be accessed at
 <http://www.lib.utexas.edu/maps/middle_east_and_asia/vietnam_admin01.jpg>.
 - Mod.TY]

[3] Pakistan (Karachi)
 Date: Thu 27 Sep 2007
 Source: Daily Times [edited]
 <http://www.dailytimes.com.pk/default.asp?page=2007%5C09%5C27%5Cstory_27-9-2007>

The Sindh Health Department's Dengue Fever Surveillance Cell reported 22 fresh cases of the disease in select hospitals across Karachi on Wednesday [26 Sep 2007].

Additional health secretary and in-charge of the surveillance cell, Dr Shakil Malik, giving details of these cases, told APP [Associated Press of Pakistan] that 20 of the patients are positive and they are waiting for the report on the other 2.

The hospitals that dispatched reports include Liaquat National Hospital, Ziauddin Hospital, Bismillah Taquee Hospital, and Zainab Panjwani Hospital. "Since we just reactivated the cell on Tuesday [25 Sep 2007], it will take time before we make contact with all the hospitals scattered across the city," he said. To a question, he said that around 170 suspected cases of dengue fever have been reported from across the city this year -- from January [2007] to date. He also referred to the report the provincial health department received from a local laboratory (Mid Citi Lab) that tested 24 OPD [out patient department] patients between August [2007] and now. Of these individuals, 12 came out positive.

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Communicated by:
PromED Rapporteur Brent Barrett

[Karachi is located on the Arabian Sea. A map of Pakistan can be accessed at
<http://www.lib.utexas.edu/maps/middle_east_and_asia/pakistan_pol_2002.jpg>.
- Mod.TY]

[4] Latin America
Date: Sat 29 Sep 2007
Source: Associated Press [edited]
<<http://ap.google.com/article/ALeqM5i86GcnUASvmXnP19bBXcqngijdsQD8RVA1604>>

Dengue fever is spreading across Latin America and the Caribbean in one of the worst outbreaks in decades, causing agonizing joint pain for hundreds of thousands of people and killing nearly 200 so far this year [2007].

The mosquitoes that carry dengue are thriving in expanded urban slums scattered with water-collecting trash and old tires. Experts say dengue is approaching record levels this year [2007] as many countries enter their wettest months.

"If we do not slow it down, it will intensify and take a greater social and economic toll on these countries," said Dr. Jose Luis San Martin, head of anti-dengue efforts for the Pan American Health Organization (PAHO), a regional public health agency.

The US Centers for Disease Control and Prevention (CDC) in Atlanta has posted advisories this year [2007] for people visiting Latin American and Caribbean destinations to use mosquito repellent and stay inside screened areas whenever possible.

"The danger is that the doctors at home don't recognize the dengue," said Dr. Wellington Sun, the chief of the CDC's dengue branch in San Juan, [Puerto Rico] "The doctors need to raise their level of suspicion for any traveler who returns with a fever."

Dengue has already damaged the economies of countries across the region by driving away tourists, according to a document prepared for a PAHO conference beginning Monday [1 Oct 2007] in Washington.

Some countries have focused mosquito eradication efforts on areas popular with tourists. Mexico sent hundreds of workers to the resorts of Puerto Vallarta, Cancun, and Acapulco this year [2007] to try to avert outbreaks.

Health ministers from across the region meet at the PAHO conference and San Martin said he will urge them to devote more resources to dengue feve

The tropical virus was once thought to have been nearly eliminated from Latin America, but it has steadily gained strength since the early 1980s. Now, officials fear it could emerge as a pandemic similar to one that became a leading killer of children in Southeast Asia following World War II.

Officials say the virus is likely to grow deadlier in part because tourism and migration are circulating 4 different strains across the region. A person exposed to one strain may develop immunity to that strain -- but subsequent exposure to another strain makes it more likely the person will develop the hemorrhagic form.

"The main concern is what's happening in the Americas will recapitulate what has happened in Southeast Asia, and we will start seeing more and more severe types of cases of dengue as time progresses," Sun said.

So far this year [2007], 630 356 dengue cases have been reported in the Americas -- most in Brazil, Venezuela, or Colombia -- with 12 147 cases of hemorrhagic fever and 183 deaths, according to the Pan American Health Organization. With the spread expected to accelerate during the upcoming rainy season in many countries, cases this year [2007] could exceed the 1 015 000 reported in 2002, according to San Martin.

In Puerto Rico, where 5592 suspected cases and 3 deaths have been reported, some lawmakers called this week for the health secretary to resign.

In the Dominican Republic, which has reported 25 deaths this year [2007], the health department announced Thursday [27 Sep 2007] that it would train 2.5 million public school students to encourage parents and neighbors to eliminate standing water.

Researchers have not yet developed a vaccine against dengue and Sun said that for now, the only way to stop the virus is to contain the mosquito population -- a task that relies of countless, relentless individual efforts including installing screen doors and making sure mosquitoes are not breeding in garbage.

"It's like telling people to stop smoking," he said. "They may do it for a while, but they don't do it on a consistent basis and without doing that, it's not effective."

While dengue is increasing around the developing world, the problem is most dramatic in the Americas, according to the CDC.

Health officials believe the resurgence of the malaria-like illness is due partly to a premature easing of eradication programs in the 1970s.

Migration and tourism also have carried new strains of the virus across national borders, even into the United States, which had largely wiped out the disease after a 1922 outbreak that infected a half-million people.

Mexico has been struggling with an alarming increase in the deadly hemorrhagic form of dengue, which now accounts for roughly one in 4 cases. The government has confirmed 3249 cases of hemorrhagic dengue for the year through 15 Sep [2007], up from 1924 last year [2006].

The CDC says there is no drug to treat hemorrhagic dengue, but proper treatment, including rest, fluids, and pain relief, can reduce death rates to about one percent.

San Martin said he use the meetings starting Monday [1 Oct 2007] to urge enforcement of trash disposal regulations, more investment in mosquito control and new incentives for communities to participate. "It is a battle of every government, every community and every individual," he said.

[Byline: Michael Melia]

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The WHO (World Health Organisation) description of dengue fever and the more deadly dengue hemorrhagic fever [DHF] can be found in PromED-mail's "Dengue/DHF update [20070514.1541](#)". PromED-mail thanks the contributors to this update and encourages others to contribute reports also. - Mod.TY] 97

[see also:
 Dengue/DHF update 2007 (36) [20070924.3165](#)
 Dengue/DHF update 2007 (35) [20070918.3103](#)
 Dengue/DHF update 2007 (34) [20070908.2964](#)
 Dengue/DHF update 2007 (33) [20070821.2726](#)
 Dengue/DHF update 2007 (32) [20070816.2675](#)
 Dengue/DHF update 2007 (31) [20070806.2555](#)
 Dengue/DHF update 2007 (30) [20070730.2440](#)
 Dengue/DHF update 2007 (20) [20070514.1541](#)
 Dengue/DHF update 2007 (10) [20070225.0683](#)
 Dengue/DHF update 2007 (01) [20070103.0030](#)]
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医薬品 研究報告 調査報告書

識別番号・報告回数		報告日	第一報入手日 2007. 10. 16	新医薬品等の区分 該当なし	機構処理欄
一般的名称	人赤血球濃厚液	研究報告の公表状況	Yahoo!ニュース, 2007 Oct 14.	公表国 台湾	
販売名(企業名)	赤血球濃厚液-LR「日赤」(日本赤十字社) 照射赤血球濃厚液-LR「日赤」(日本赤十字社)				
研究報告の概要	<p>○台南で511人が感染！猛威をふるうデング熱、「蚊」撲滅作戦に軍も動員へー台湾南部 台湾のニュースサイト「中国台湾網」などが伝えたところによると、台湾南部でデング熱が流行。台南市政府の最新の調査では、2007年10月13日までに市内で511人の感染者が確認されたほか、隣接する高雄市でも2つの区で集団感染が発生しており、感染の広がりは過去最大規模。 高雄市では来週、スポーツ競技大会が予定されており、選手団の感染を防ぐため競技会場と選手村周辺地域を警戒重点区域に指定した。市職員のほか、軍も動員し、デング熱ウイルスを媒介する蚊の撲滅作戦を展開する方針だ。</p>				使用上の注意記載状況・ その他参考事項等 赤血球濃厚液-LR「日赤」 照射赤血球濃厚液-LR「日赤」 血液を介するウイルス、 細菌、原虫等の感染 vCJD等の伝播のリスク
	報告企業の意見 台湾南部でデング熱が流行し、台南市内で511人の感染者が確認されたほか、隣接する高雄市でも集団感染が発生しており、感染の広がりは過去最大規模となっているとの報告である。	今後の対応 日本赤十字社では、輸血感染症対策として問診時に海外渡航歴の有無を確認し、帰国(入国)後4週間は献血不適としている。問診でデング熱の既往があった場合には、治癒後1ヶ月間献血不可としている。今後も引き続き情報の収集に努める。			

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検索

ニュース記事 条件検索

主要 国内 海外 経済 エンターテインメント スポーツ テクノロジー ニュース提供社

海外総合 中国 韓国

[PR] まず、あなたが「一生添い遂げたい人」を診断してみませんか！[無料]

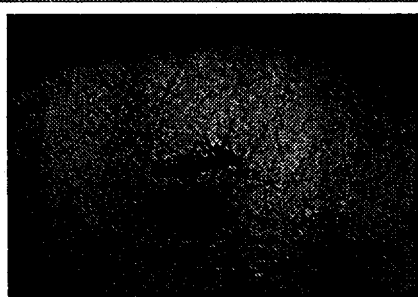
海外

文字サイズ: 小 中 大

PR

台南で511人が感染！猛威をふるうデング熱、「蚊」撲滅作戦に軍も動員へ—台湾南部

10月14日9時38分配信 Record China



拡大写真

台湾のニュースサイト「中国台湾網」などが伝えたところによると、台湾南部でデング熱が流行。台南市政府の最新の調査では、2007年10月13日までに市内で511人の感染者が確認されたほか、隣接する高雄市でも2つの区で集団感染が発生しており、感染の広がりは過去最大規模。

高雄市では来週、スポーツ競技大会が予定されており、選手団の感染を防ぐため競技会場と選手村周辺地域を警戒重点区域に指定した。市職員のほか、軍も動員し、デング熱ウイルス

台湾南部で蚊が媒介するデング熱が大流行。10月13日までに台南市で511人の感染が確認されたほか、高雄市でも集団感染が発生。行政と軍が協力して大規模な蚊の撲滅作戦を展開する方針。

を媒介する蚊の撲滅作戦を展開する方針だ。(翻訳・編集/本郷智子)

最終更新:10月14日9時38分

Record China

ソーシャルブックマークへ投稿 5件:

(ソーシャルブックマークとは)

Yahoo!知恵袋に質問する

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みんなの感想 この話題についてみんながどう感じたかわかります。



海外トピックス

- 英、五輪予定地で火災と黒煙
- NY劇場スト1日19億円の損失
- サウジ王子「空飛ぶ宮殿」購入 NEW!
- ベトナム洪水 ワニ数百匹脱走
- ベネズエラ大統領、叱られる
- ブット元首相を再び軟禁下に NEW!
- ヒラリー陣営がやらせ質問

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医薬品 研究報告 調査報告書

識別番号・報告回数		報告日	第一報入手日 2007. 10. 22	新医薬品等の区分 該当なし	機構処理欄
一般的名称	人赤血球濃厚液	研究報告の公表状況	三浦左千夫, 肥後廣夫, 竹内勤. 第48回日本熱帯医学会大会	公表国 日本	
販売名(企業名)	赤血球濃厚液-LR「日赤」(日本赤十字社) 照射赤血球濃厚液-LR「日赤」(日本赤十字社)				
研究報告の概要	<p>○日本におけるラテンアメリカ人の慢性シャーガス病キャリアーからの献血についての対策検討 近年ラテンアメリカからの就労目的の定住化人口が増加の一途にあり、既に40万人を超えようとしている。当然就労目的のため、表向きは健常者としての来日である。しかし、就労中に疲れを訴え呼吸困難などの不調を来したた為に医療機関を受診し、出身地を考慮の後、血清免疫学的検査の結果シャーガス病感染を示唆された者が13名見いだされた。中には、末梢血で病原体 <i>Trypanosoma cruzi</i> (<i>T. cruzi</i>) の存在を示唆する <i>T. cruzi</i> DNAのPCR増幅断片が、検査の度に検出される者もいた。また血液培養(LIT培地、NNN培地)で血液型虫体の分離にも成功した例など、慢性シャーガス病即ち病原体のキャリアーであることが明らかとなった者もいた。これらの抗体陽性者13名のうち1名については日本滞在中に献血を行っていた。注意すべきは、我が国では主要媒介昆虫が棲息しないものの、シャーガス病慢性キャリアーからの輸血、臓器移植などによる二次的感染の危険性である。今回、献血機関で保存血用に使っているカーミC液(CPD液)を用いて感染マウス血液を4℃にて1~21日間保存処理を行った。これを正常マウスに接種し感染性、病原性について基礎的な検討を行った。その結果マウスへの感染性は無処置のものとの差異は無かったが、病原性についてはかなり減弱していることが示唆された。これは <i>T. cruzi</i> に対して4℃という低温ストレスが影響したものと考えられる。また同時に白血球除去フィルターを用いての <i>T. cruzi</i> の通過性など検討した。その結果殆どのフィルターを <i>T. cruzi</i> 虫体は通過してしまった。従って、残念ながら我が国で行われている現在の輸血用の保存血液提供システムでは、シャーガス病の輸血感染を確実には防止できない。ラテンアメリカ人に対する抗体チェックの実施とその強化などを、社会医学的影響を考慮の上、今後も更に安全輸血業務を遂行する為の対策の改善を図る必要がある。</p>				使用上の注意記載状況・ その他参考事項等
	報告企業の意見	今後の対応	<p>赤血球濃厚液-LR「日赤」 照射赤血球濃厚液-LR「日赤」</p> <p>血液を介するウイルス、 細菌、原虫等の感染 vCJD等の伝播のリスク</p>		
カーミC液(CPD液)を用いて <i>T. cruzi</i> 感染マウス血液を4℃にて1~21日間保存処理を行ったところ、マウスへの感染性は無処置のものとの差異は無かったが、病原性はかなり減弱していることが示唆された。我が国においても、安全輸血業務を遂行する為の対策の改善を図る必要があるとの報告である。	日本赤十字社は、輸血感染症対策として献血時に海外渡航歴の有無を確認し、帰国(入国)後4週間は献血不適としている。また、シャーガス病の既往がある場合には献血不適としている。日本在住の中南米出身献血者については、国と協議しつつ対応を検討中である。今後も引き続き情報の収集に努める。				



12C-02

日本におけるラテンアメリカ人の慢性シャーガス病キャリアーからの献血についての対策検討
The study of the counter measures against blood donation from chronic
Chagas disease carrier of latin-american residing in Japan

三浦 左千夫¹、肥後 廣夫²、竹内 勤¹

慶応義塾大学医学部熱帯医学寄生虫¹、九州大学医学部感染免疫熱帯医学分野²

近年ラテンアメリカからの就労目的の定住化人口が増加の一途にあり、既に40万人を超えようとしている。当然就労目的の為、表向きは健常者としての来日である。しかし、就労中に疲れを訴え呼吸困難などの不調を来たした為に医療機関を受診し、出身地を考慮の後、血清免疫学的検査の結果シャーガス病感染を示唆された者が13名見いだされた。中には、末梢血で病原体 *Trypanosoma cruzi* (*T.cruzi*) の存在を示唆する *T.cruzi*-DNAのPCR増幅断片が、検査のたびに検出される者もいた。また血液培養 (LIT培地、NNN培地) で血液型虫体の分離にも成功した例など、慢性シャーガス病即ち病原体のキャリアーであることが明らかとなった者もいた。これらの抗体陽性者13名のうち1名については日本滞在中に献血を行っていた。注意すべきは、我が国では主要媒介昆虫が棲息しないものの、シャーガス病慢性キャリアーからの輸血、臓器移植などによる二次的感染の危険性である。今回、献血機関で保存血用に使っているカーミC液 (CPD液) を用いて感染マウス血液を4℃にて1~21日間保存処理をおこなった。これを正常マウスに接種し感染性、病原性について基礎的な検討を行った。その結果マウスへの感染性は無処置のものと差異は無かったが、病原性についてはかなり減弱していることが示唆された。これは *T.cruzi* に対して4℃という低温ストレスが影響したものと考えられる。また同時に白血球除去フィルターを用いての *T.cruzi* の通過性など検討した。その結果殆どのフィルターを *T.cruzi* 虫体は通過してしまった。従って、残念ながら我が国で行われている現在の輸血用の保存血液提供システムでは、シャーガス病の輸血感染を確実に防止できない。ラテンアメリカ人に対する抗体チェックの実施とその強化などを、社会医学的影響を考慮の上、今後も更に安全輸血業務を遂行する為の対策の改善を図る必要がある。

医薬品 研究報告 調査報告書

<p>識別番号・報告回数</p>			<p>報告日</p>	<p>第一報入手日 2007. 10. 22</p>	<p>新医薬品等の区分 該当なし</p>	<p>機構処理欄</p>
<p>一般的名称</p>	<p>人赤血球濃厚液</p>		<p>研究報告の公表状況</p> <p>Kleinman SH, Glynn SA, Lee TH, Tobler L, Montalvo L, Todd D, Kiss JE, Shyamala V, Busch MP; National Heart, Lung, Blood Institute Retrovirus Epidemiology Donor Study (REDS-II). Transfusion. 2007 Oct;47(10):1756-64.</p>		<p>公表国</p>	
<p>販売名(企業名)</p>	<p>赤血球濃厚液-LR「日赤」(日本赤十字社) 照射赤血球濃厚液-LR「日赤」(日本赤十字社)</p>				<p>米国</p>	
<p style="writing-mode: vertical-rl;">研究報告の概要</p>	<p>使用上の注意記載状況・その他参考事項等</p>					
	<p>○供血者のパルボ・ウイルスB19DNAの高感度PCRスクリーニング法による陽性率と定量測定 背景:供血者における高感度核酸検査法を用いたパルボ・ウイルスB19 DNAの陽性率は、血漿分画製剤製造部門で高力価ウイルスを検出するためにデザインされた検査の検出率よりも高いことが最近示されている。 試験デザインおよび方法:米国の血液センター7施設において2000年～2003年の期間に採取した5020名の供血血液から得られた保存血漿検体を検査した。50%検出限界 (LOD) 1.6 IU/mL (95%信頼区間 [CI], 1.2～2.1 IU/mL) 及び95% LOD 16.5 IU/ mL (95% CI, 10.6～33.9 IU/mL) のリアルタイムB19 DNA PCR法 (PCR; TaqMan, Applied Biosystems) を用いて検査を実施した。B19 DNAの確認と測定は、別の2つの検体の再検査により行った。陽性が確定した検体は、FDAが承認した検査法を用いて抗B19免疫グロブリンM (IgM) 及びIgGの有無をテストした。 結果:B19 DNA陽性率は0.88% (95% CI, 0.64%～1.2%) であった。B19 DNA力価が20 IU/mL以上であった供血者23名のDNA値は、中央値が105 IU/mL (四分位範囲42～481 IU/mL) であり、最高値が1869 IU/mLであった。B19 DNA陽性供血はいずれもIgG陽性であり、そのうちの10名 (23%) はIgMも陽性であった。血清中のIgMが陽性であることは、DNA値の増加と関連付けられた ($p = 0.0013$)。 結論:供血者のほぼ1%に低値のB19 DNAが検出された。IgM 及びIgG B19抗体のいずれも陽性であったDNA陽性供血 (23%) は、急性感染症である可能性が高く、IgGが陽性であるがIgMが陰性の供血は、持続性のB19感染である可能性が高い。</p> <p>赤血球濃厚液-LR「日赤」 照射赤血球濃厚液-LR「日赤」</p> <p>血液を介するウイルス、細菌、原虫等の感染 vCJD等の伝播のリスク</p>					
<p>報告企業の意見</p>			<p>今後の対応</p>			
<p>米国の供血者のほぼ1%に低値のヒトパルボウイルスB19 DNAが検出されたとの報告である。</p>			<p>今後も引き続き、ヒトパルボウイルスB19に関する新たな知見及び情報の収集に努める。日本赤十字社では、以前よりRHA法によるB19抗原検査を導入、ウイルス量の多い血液を排除している。今後は検査方法の改善によりさらなる感度向上を目指すこととしている。</p>			

②

