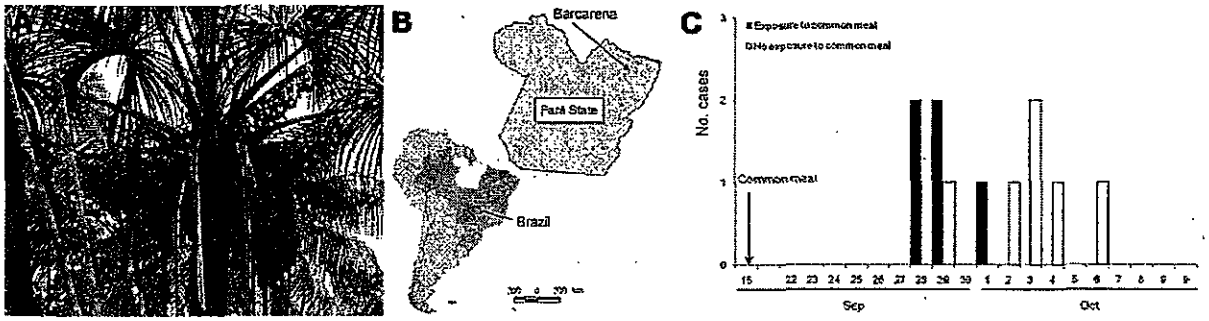

Figure 1. A) Açaí palm and açaí fruit. B) Location of Barcarena in Pará State, Brazil. C) Epidemic curve for 11 case-patients with acute Chagas disease, Barcarena, Brazil, September–October 2006.

the commercial establishment where açaí consumed by the case-patients linked to the health post was prepared and served; at an açaí juice production and sale establishment reported to be frequented by other case-patients; and at the river dock market where açaí delivered to Barcarena is unloaded. At this market, we searched baskets used to transport açaí in river boats. We applied an insect-displacing compound (piridine; Pirisa, Taquara, Brazil) to the interior and exterior of buildings at investigation sites and placed traps (*13*) to obtain triatomines.

Data were analyzed by using Epi Info version 6.04d (Centers for Disease Control and Prevention, Atlanta, GA, USA). We measured relative risk in the cohort study and matched odds ratios in the matched case–control study, with 95% confidence intervals and $\alpha = 5\%$. Fisher exact, McNemar, Mantel-Haenszel, and Kruskall-Wallis tests were used as needed. Study power $(1 - \beta)$ was 5%.

All case-patients had positive results for *T. cruzi* by direct examination of blood (Figure 2). Nine (82%) patients were female; median age was 39 years (range 7–70 years).

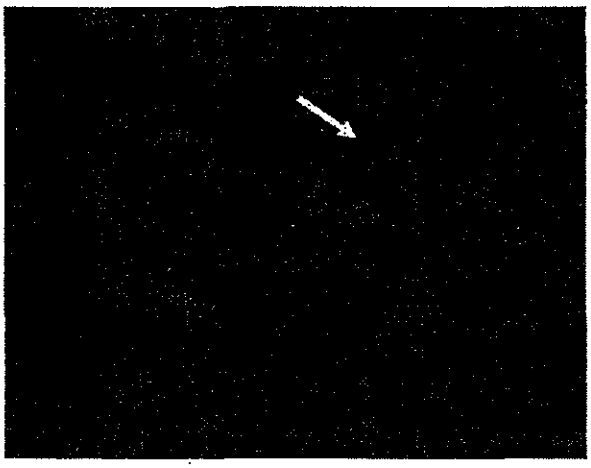

Figure 2. *Trypanosoma cruzi* (arrow) in a peripheral blood smear of a patient at a local health facility in a rural area of Pará State, Brazil (Giemsa stain, magnification ×100). Image provided by Adriana A. Oliveira, Brazilian Field Epidemiology Training Program, Brasília, Brazil.

Eight (73%) patients resided in urban areas, 7 (64%) in brick dwellings, and 3 (27%) in mixed brick and wooden dwellings. All patients denied having had blood transfusions or organ transplants, having slept in rural or sylvatic areas, and having been bitten by triatomines.

The epidemic curve for the 11 patients is shown in Figure 1, panel C. Main signs and symptoms were fever, weakness, facial edema, myalgia, arthralgia, and peripheral edema (Table 1). No deaths occurred, and median time from symptom onset to treatment initiation was 22 days.

The cohort consisted of 12 persons who attended the staff meeting. Of these persons, 6 shared a meal, 5 (83%) of whom were case-patients. The remaining persons were seronegative for *T. cruzi*. Exposures associated with infection were consumption of thick açaí paste and drinking açaí juice at the health post; consumption of chilled açaí was protective (Table 2). This shared meal was the only common exposure among cohort members. No other foods consumed at the meal were associated with illness (Table 2). Among exposures tested, drinking açaí juice on September 15 and at the health post were significantly associated with illness ($p<0.02$ and $p<0.001$, respectively; matched odds ratio not determined). Other exposures were not associated with illness. No triatomine insects were identified at any sites of the entomologic investigation.

Table 1. Signs and symptoms in 11 patients with laboratory-confirmed acute Chagas disease, Barcarena, Brazil, 2006

Sign or symptom	No. (%) patients
Fever	11 (100)
Fatigue	11 (100)
Facial edema	11 (100)
Headache	10 (91)
Myalgia	9 (82)
Arthralgia	9 (82)
Peripheral edema	9 (82)
Shortness of breath	7 (64)
Tachycardia	7 (64)
Nausea/vomiting	7 (64)
Jaundice	5 (46)
Epigastric pain	5 (46)
Retroorbital pain	5 (46)

Table 2. Food exposures in a cohort study of 5 case-patients with acute Chagas disease, Barcarena, Brazil, 2006*

Exposure†	Ill, no. (%)	Not ill, no. (%)	RR	95% CI	p value‡
Açaí, thick paste	3 (100)	0	4.5	1.3–15.3	0.04
Açai juice at health post	3 (100)	0	4.5	1.3–15.3	0.04
Chilled açaí juice	1 (12)	7 (88)	0.1	0.02–0.8	0.02
Charque	3 (75)	2 (25)	5.3	0.8–35.1	0.09
Cupuaçu	2 (100)	0	3.3	1.3–8.6	0.15
Biribá	1 (50)	1 (50)	1.3	0.3–6.1	0.68
Muruci	1 (100)	0	2.3	1.3–6.0	0.42
Any raw food	4 (67)	2 (33)	4.0	0.6–26.1	0.12

*RR, relative risk; CI, confidence interval.
†Charque is dried, salted meat; cupuaçu, biribá, and muruci are fruits.
‡By Fisher exact test.

Conclusions

Our study findings implicated açaí in an outbreak of acute Chagas disease. Oral transmission of this disease in the Amazon region has been reported since the 1960s. Açaí has long been the principal suspected food vehicle, but characteristics of outbreaks, small groups with universal exposure and high attack rates, have precluded epidemiologic implication of this food. There are no reports of timely collection of açaí for laboratory testing in an outbreak.

In this outbreak, vectorborne, transfusional, transplant-associated, and transplacental transmission were excluded. Incubation periods of cohort case-patients were compatible with those of previous reports. A shared meal was the only event linking case-patients, and cohort and case–control studies demonstrated an association between açaí consumption at this meal and infection. These findings indicate an outbreak of orally transmitted disease from contaminated açaí.

Limitations of this study are possible recall bias caused by delay between illness and investigation and failure to collect food samples for testing. Studies are needed to determine viability of *T. cruzi* in açaí, along with the tree-to-bowl continuum of açaí, to identify sources of contamination. Because açaí is a major dietary component in the Amazon region and a component of the local economy, identifying practical prevention measures is essential.

Ms Nóbrega is supervisor of the Field Epidemiology Training Program of the Brazilian Ministry of Health in Brasília, Brazil. Her research interests include the epidemiology of infectious diseases and outbreak investigations.

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別紙様式第2-1

No. 10

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	新医薬品等の区分	総合機構処理欄
				2009. 4. 9	該当なし	

一般的名称	人赤血球濃厚液	研究報告の公表状況		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)		ProMED 20090406.1328, 2009 Apr 6. 情報源:El Universal, 2009 Apr 5.	ベネズエラ

研究報告の概要 38

○食品介在性トリパノソーマ症 - ベネズエラ、グアバジュース
ベネズエラ北部のバルガス州西部Chichiriviche de la Costaの住民らに被害が出ている疾患は、シャーガス病であることが確認された。汚染されたグアバジュースの摂取により伝播され、同じ学校に通う児童47名と教師3名が感染するアウトブレイクが発生した。4週間以上続く流行で患者数は増加しており、7、9、12歳の3名の児童が死亡した。児童35名は未だ入院中で、重症患者もいる。既に対策が取られ、感染拡大の危険はない。

報告企業の意見	今後の対応
ベネズエラで、グアバジュースの摂取によるシャーガス病のアウトブレイクが発生し、同じ学校に通う児童47名と教師3名が感染、児童3名が死亡したとの報告である。	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、厚生労働科学研究「献血血の安全性確保と安定供給のための新興感染症等に対する検査スクリーニング法等の開発と献血制限に関する研究」班と共同して検討する予定である。今後も引き続き情報の収集に努める。

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

(4)

Archive Number 20090406.1328
Published Date 06-APR-2009
Subject PRO/AH/EDR> Trypanosomiasis, foodborne - Venezuela: (Vargas), guava juice

TRYPANOSOMIASIS, FOODBORNE - VENEZUELA: (VARGAS), GUAVA JUICE
****
A ProMED-mail post
<http://www.promedmail.org>
ProMED-mail is a program of the
International Society for Infectious Diseases
<http://www.isid.org>

Date: 5 Apr 2009
Source: El Universal [trans by Mod.MPP, edited]
<http://www.eluniversal.com/2009/04/05/qrccs_art_confirman-chagas-en_1338174.s

Chagas confirmed on the west coast of Vargas

Ministry of Health [MINSA] reiterates the lifting of epidemiologic siege

Yesterday the Minister of Health, Jesus Mantilla, confirmed that Chagas disease is the disease that is attacking the population of Chichiriviche de la Costa, in the western part of the state of Vargas.

The head of the Ministry of Health was in the area and stated that it was transmitted through the ingestion of contaminated guava juice, producing the outbreak of illness in the area, that affected 47 students and three teachers from the morning shift of the Romulo Monasterios state school.

Similarly, the minister reiterated the statements made yesterday [4 Apr 2009 -- see prior ProMED-mail posting Undiagnosed fatalities - Venezuela (02): (Vargas) Chagas susp, RFI 20090404.1305 - Mod.MPP] by the governor of Vargas, Jorge Garcia Carneiro, the epidemiologic "fence" erected to stop the epidemic that occurred in the area, because, as noted, there is no risk of spread.

For this disease, which for over 4 weeks was affecting the population and increasing numbers of patients, killing 3 children ages 7, 9 and 12 years.

However, 35 other children remain hospitalized in the La Guaira Social Security [hospital], the Pariata Periferico [health facility], the Perez Carreno [health facility] and the University Clinic. Doctors from this hospital reported that 15 patients from the area have been admitted, and that the problem is present from [the events surrounding carnaval - Mardis Gras - Mod.MPP]. It was learned that there is a patient in serious condition.

Although the possibility of transmission in the zone was ruled out, the residents of Chichiriviche reported that the usual vacationers to the zone have not arrived. [The affected area is a beach resort frequented by vacationers. The week ending in Easter Sunday is known as Semana Santa in Latin American countries. It is a vacation week, and locations such as Chichiriviche are usually filled with vacationers coming for the week. - Mod.MPP]

[Byline: Anthony Rangel]

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Communicated by:
ProMED-mail <promed@promedmail.org>

[The above newswire is confirmation of the suspicion that the previously undiagnosed outbreak in Venezuela (see prior ProMED-mail postings listed below) is due to ingestion of a juice that was contaminated with _Triatoma infestans_ intestinal contents.

This is now the 7th outbreak of foodborne transmission of trypanosomiasis in the Americas reported by ProMED-mail (see prior postings listed below). As mentioned in the 1st report of this current outbreak (Undiagnosed fatalities - Venezuela: (Vargas), Chagas, susp, RFI 20090402.1279), the 1st reported outbreak of foodborne transmission of trypanosomiasis was reported in Santa Catarina Brazil in 2005 (see prior ProMED-mail postings listed below). This outbreak was associated with ingestion of sugar cane juice that was found to be contaminated with crushed _Triatoma infestans_, the vector of trypanosomiasis in Brazil. Since reporting of outbreaks of foodborne transmitted trypanosomiasis began, there were 6 prior documented outbreaks associated with contaminated juices -- 4 in Brazil (involving 4 states in the country), one in Venezuela, and one in Colombia. The prior outbreak in Venezuela involved 128 cases at a school in metropolitan Caracas, and was associated with contaminated fruit juice. This current outbreak has involved approximately 50 cases at a school in a small beachside town/village outside of Caracas, and is also associated with contaminated fruit juice.

One wonders how new a phenomenon foodborne transmission of trypanosomiasis really is, or is it just that we are now looking more carefully as the standard of housing in these countries has improved, and exposure to the _Triatoma infestans_ in the household has decreased. Or perhaps, there is improved recognition and investigation of acute outbreaks in general in the region.

For the interactive HealthMap/ProMED map of Chichiriviche with links to other recent ProMED-mail postings in surrounding areas, see <http://healthmap.org/r/008y>. - Mod.MPP]

[see also:
Undiagnosed fatalities - Venezuela (02): (Vargas) Chagas susp, RFI 20090404.1305
Undiagnosed fatalities - Venezuela: (Vargas), Chagas, susp, RFI 20090402.1279
Trypanosomiasis - Colombia: (SAN), foodborne susp. 20090121.0259
2007

Trypanosomiasis, foodborne - Venezuela: (Caracas) (02) 20071231.4192
Trypanosomiasis, foodborne - Venezuela: (Caracas) 20071226.4141
Trypanosomiasis, foodborne - Brazil (Amazonia) 20070821.2732
2006

Trypanosomiasis, foodborne - Brazil (PA) 20060728.2085
2005

Trypanosomiasis, foodborne - Brazil (Santa Catarina) (05) 20050401.0940
Trypanosomiasis - Brazil (Amapa) 20050331.0929
Trypanosomiasis, foodborne - Brazil (Santa Catarina) (04) 20050330.0917
Trypanosomiasis, foodborne - Brazil (Santa Catarina) (03) 20050327.0884
Trypanosomiasis, foodborne - Brazil (Santa Catarina) (02) 20050325.0870
Trypanosomiasis, foodborne - Brazil (Santa Catarina) 20050324.0847
1997

Chagas disease - Latin America 19970114.0066
Chagas disease vector (05) 19970118.0105
1996

Trypanosomes, New World, Symposium - Guyana 1996 19960830.1493]
.....mpp

or archived material. »

別紙様式第 2-1
番号 9

医薬品
医薬部外品　　研究報告　調査報告書
化粧品

識別番号・報告回数			報告日	第一報入手日 2009 年 5 月 25 日	新医薬品等の区分 該当なし	厚生労働省処理欄

一般的名称	人ハプトグロビン	研究報告の公表状況	The NEW ENGLAND JOURNAL of MEDICINE 2009; 360(20): 2099-2107	公表国 アメリカ
販売名 (企業名)	ハプトグロビン静注 2000 単位「ベネシス」　(ベネシス)			

研究報告の概要

New York の 62 才男性は，シカダニウイルスに感染したシカダニの咬傷後，髄膜脳炎で死亡した。手術および剖検で採取された組織標本の解析で、広範囲にわたる壊死性髄膜脳炎であることが明らかになった。ホルマリン固定組織から核酸が抽出され、シカダニウイルスの存在がフラビウイルス特異的 PCR 測定法で確認された。
シカダニウイルスは、フラビウイルスのダニ媒介脳炎群であり、ポワッサンウイルスと密接に関係がある。ダニ媒介脳炎ウイルスとポワッサンウイルスを含めて、フラビウイルスのダニ媒介脳炎群のいくつかは、人および動物で脳炎を起こす。ダニ媒介脳炎ウイルスは最も重大な大発生を起こしている。これらのウイルスは抗原性において密接に関連し、主に北半球で見つかっている。ダニ媒介脳炎ウイルスによる感染は軽度あるいは無症候性、または、髄膜炎と脳炎が起こる可能性がある。
米北東部および北中央部の一定の地域で、シカのシカダニウイルスの保有率は高い。しかし、ヒト感染は過去に報告されていない。これは、このウイルスが容易に人に感染しない、あるいは、それが特に病原性でないことを示唆する。脳炎症状患者においてポワッサンウイルスの診断検査は通常実施されない。
そのため、ヒト発生率は、過小評価される可能性がある。
シカダニはライム病、ヒト・バベシア症やヒト顆粒球アナプラズマ症を含むいくつかのダニ媒介疾患を伝染させる。この症例は、シカダニウイルスが致命的脳炎の原因でありえることを立証する。

報告企業の意見	今後の対応
シカダニウイルスがヒトに感染した初めての報告であり、また、このウイルスが致命的脳炎の原因であり得るとする報告である。 シカダニウイルスは、フラビウイルス科フラビウイルス属に属し、ビリオンは球形で、直径 40～50nm のエンベロープ有する RNA ウイルスである。万一、原料血漿にシカダニウイルスが混入しても、BVD をモデルウイルスとしたウイルスバリデーション試験成績から、製造工程において十分に不活化・除去されると考えている。	本報告は本剤の安全性に影響を与えないと考えるので、特段の措置はとらない。

使用上の注意記載状況・その他参考事項等

2. 重要な基本的注意
(1) 本剤の原材料となる献血者の血液については、HBs 抗原、抗 HCV 抗体、抗 HIV-1 抗体、抗 HIV-2 抗体、抗 HTLV-Ⅰ抗体陰性で、かつ ALT(GPT)値でスクリーニングを実施している。更に、プールした試験血漿については、HIV-1、HBV 及び HCV について核酸増幅検査(NAT)を実施し、適合した血漿を本剤の製造に使用しているが、当該 NAT の検出限界以下のウイルスが混入している可能性が常に存在する。本剤は、以上の検査に適合した血漿を原料として、Cohn の低温エタノール分画で得た画分から人ハプトグロビンを濃縮・精製した製剤であり、ウイルス不活化・除去を目的として、製造工程において 60℃、10 時間の液状加熱処理及びウイルス除去膜によるろ過膜処理を施しているが、投与に際しては、次の点に十分注意すること。