

This first case of autochthonous malaria in Corsica in 35 years demonstrates the importance of epidemiological surveillance on the island. Similar events occurred in Italy in 1997 with one case of autochthonous *P. vivax* malaria linked to an imported case from India [10] and in Spain in 2001 with one autochthonous *P. ovale* case [11]. This case demonstrates that mosquito eradication and anti-vectorial measures should be carried out with great care. Although autochthonous transmission could occur again, the detection of one exceptional malaria infection transmitted by mosquitoes in Corsica in summer 2006 does not justify proposing individual malaria protection for Corsica's residents and tourists. Systematic travel health advice is very important for individuals who are travelling to tropical countries in order to reduce the risk of people returning with malaria which can be spread by local mosquitoes [1].

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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. 1. 16</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>(製造承認書に記載なし)</p>		<p>研究報告の公表状況</p>	<p>T Jelinek, R Behrens, Z Bisoffi, A Bjorkmann, J Gascon, U Helligren, E Petersen, T Zoller, R H Andersen, Anders Blaxhult. Euro Surveill. 2007 Jan 11;12(1):E070111.1.</p>	<p>公表国</p>	
<p>販売名(企業名)</p>	<p>合成血「日赤」(日本赤十字社) 照射合成血「日赤」(日本赤十字社) 合成血-LR「日赤」(日本赤十字社) 照射合成血-LR「日赤」(日本赤十字社)</p>				<p>ヨーロッパ</p>	
<p>研究報告の概要</p>	<p>○最近のインド・ゴア州からEUへの熱帯熱マラリア輸入症例、2006年12月～2007年1月 インド特に西海岸沿いのゴア州への渡航者において、マラリア患者の増加が報告されている。過去2年間、ヨーロッパからゴア州への渡航者ではマラリア患者は報告されていなかったが、2006年11月後半からゴア州を含むインド地域からのマラリア症例報告数が増加している。2007年1月10日までに、ドイツ、デンマーク、スウェーデンから患者8例が報告された。このうち4例は、ゴア州に2～3週間滞在し、インド国内の他の地域は訪れていなかった。 人気のある冬季リゾート地であるゴア州は、渡航者に関してマラリア感染のリスクが非常に小さいと考えられていた。2006年10月以来のゴアおよびKonokan地域での例年を上回る豪雨が、今雨期中の媒介蚊数の増加と感染伝播の増悪の原因である可能性がある。当面はマラリア伝播のリスクは高まる恐れがあり、この地域への渡航を計画している旅行者は蚊の予防対策を講じるよう勧告される。渡航中あるいは帰国後間もなく具合が悪くなったならば、迅速に医療機関を受診すべきである。 デンマークでは、2006年12月に新たにマラリア予防勧告を発表した。スウェーデンでは旅行者向け勧告の変更はなかったが、スウェーデン感染症研究所は全ての感染症対応当局に書簡を送付し「ゴア州を訪れる予定の旅行者はマラリア予防服薬が考慮される。」と表明している。ドイツでは、渡航者に対する勧告の変更はなされていない。また、英国旅行者へのマラリア予防諮問委員会(ACMP)は、予防勧告の変更を発表した。ゴア州、特にPanaji北部地区を訪れると計画していて、渡航中医療機関にアクセスできない可能性がある旅行者に、マラリアリスクの強調、蚊の予防対策の教育、マラリア化学予防を行うべきであると勧告している。</p>					<p>使用上の注意記載状況・ その他参考事項等</p>
<p>報告企業の意見</p>			<p>今後の対応</p>			
<p>インド、ゴア州への渡航者において、熱帯熱マラリア患者の増加が報告されているとの報告である。</p>			<p>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、帰国後4週間は献血不適としている。また、マラリア流行地への旅行者または居住経験者の供血を一定期間延期している(1～3年の延期を行うとともに、帰国後マラリアを思わせる症状があった場合は、感染が否定されるまでの間についても献血を見合わせる)。今後も引き続き、マラリア感染に関する新たな知見及び情報の収集、対応に努める。</p>			

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To see the citations for these articles, including electronic page number, [click here](#). For further explanation and help, [see here](#).

1. [Recent cases of falciparum malaria imported to Europe from Goa, India, December 2006-January 2007](#)
2. [Outbreak of legionnaires' disease among tourists staying at a hotel in Phuket, Thailand](#)
3. [First isolation of *Clostridium difficile* 027 in Japan](#)
4. [A comparison of public domain software for outbreak investigations: Epi Info and EpiData](#)
5. [The BURDEN project - Assessing the burden of resistance and disease in Europe](#)

Recent cases of falciparum malaria imported to Europe from Goa, India, December 2006-January 2007

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An increase in numbers of malaria cases has recently been reported in travellers returning from India, in particular from the state of Goa, on the west coast. These cases have been reported to the European Network on Imported Infectious Disease Surveillance (TropNetEurop, <http://www.tropnet.net>). In the past two years, there have been no reports of malaria in European travellers to Goa. However, since late November 2006, the malaria surveillance map of the network has shown an unusually intensive signal from India [1], indicating an increase in the number of malaria reports from that region, including Goa.

By 10 January, eight patients had been reported: two in Germany, four in Denmark, and two in Sweden. With the exception of two Danish cases, all patients travelled independently of one another. The two German patients, one of the Swedish patients and one of the Danish patients stayed in Goa for 2-3 weeks and had not visited other regions within India.

Germany cases 1 and 2

The two German patients developed severe malaria and were treated in an intensive care unit with

artesunate/doxycycline. Both travellers (a woman in her 50s and a man in his 40s), travelling independently, spent 14 days at two popular coastal resorts in Goa. Neither took any malaria chemoprophylaxis. One traveller developed a hyperparasitaemia of 25%, both had signs of cerebral malaria and acute renal failure. They were admitted to the hospital on December 10 and 11 respectively, and made a full recovery.

Sweden case 1

A Swede in his 40s travelled to Goa for two and a half weeks in November-December 2006. He visited a beach in northern Goa and stayed in a beach hotel. He slept under a mosquito net but without air conditioning. He did not take any malaria chemoprophylaxis, in accordance with the Swedish recommendations for travellers to that area [2]. Five days after his return to Sweden, he developed a sudden fever, was diagnosed with a probable pneumonia and treated with amoxicillin/clavulanic acid for three days. With no improvement in his condition he was admitted to hospital seven days later, where a diagnosis of *Plasmodium falciparum* monoinfection with 0.4% parasitaemia was made. This diagnosis was delayed because travel history had not been obtained earlier. The patient was treated with mefloquine and made an uneventful recovery.

Sweden case 2

A Swede in her 50s visited Goa for a two week holiday in November-December 2006, and did not take any malaria chemoprophylaxis. Staying in a coastal area in Goa, she travelled for three days to an area 300 km inland. She developed symptoms the day before her return to Sweden. On her return she visited her general practitioner twice, and a diagnosis of bronchitis was made and treatment with amoxicillin/clavulanic acid started. The patient was admitted to hospital with a fever of 40° C, hypotensive thrombocytopenia and hyponatraemia, diagnosis with *P. falciparum malaria* and a 1.5% parasitaemia, 16 days after her return. Malaria treatment was initiated with quinine and proguanil/atovaquone. Her condition gradually improved and she was discharged from hospital a week later.

Denmark case 1

A Dane in his 60s visited Goa for a two week holiday in December 2006. He stayed in Goa but visited a waterfall in an area east of Goa. His hotel accommodation in Goa had no air conditioning and no mosquito net. In accordance with the Danish travel recommendations at the time [3] he did not take any malaria chemoprophylaxis. He developed symptoms of fever and headache nine days after his return to Denmark, and was admitted to a local hospital three days later. Two days later, he was diagnosed with *P. falciparum malaria*, 0.3 % parasitaemia, and transferred to an infectious disease ward. On admission he had eye muscle paresis but with a normal cerebral magnetic resonance imaging scan, and thrombocytopenia. Because of these complications, he was started on intravenous quinine followed by mefloquine, and made an uneventful recovery.

Denmark case 2

A Dane in his 20s travelled to Goa for a two week holiday in November 2006, and stayed in a tourist hotel. He did not take any chemoprophylaxis. His symptoms developed in early December, one week after his return to Denmark, and he was admitted to hospital three days later with a low grade fever. Microscopy revealed a parasitaemia of 1%. He was treated with mefloquine with rapid clinical response and cleared his parasitaemia uneventfully.

Denmark cases 3 and 4

Two men in their 20s travelled together to India for three weeks from mid October to the beginning of November 2006. They visited Punjab, Goa, Delhi and Mumbai. Both took chloroquine tablets only. The Danish Statens Serum Institut considers chloroquine-only prophylaxis to be insufficient for malarious areas in India and recommends taking both chloroquine and proguanil [3]. Both men developed fever, headache and gastrointestinal symptoms on the last day of their holiday. One of the patients was diagnosed that day with *P. falciparum malaria* by microscopy and was successfully treated with proguanil/atovaquone (four tablets per day for three days). The diagnosis was confirmed by Binax NOW antigen test. The second patient initially tested negative by microscopy for malaria on three consecutive days while still taking chloroquine, but his blood tested positive on six weeks after onset of symptoms, and he was successfully treated with proguanil/atovaquone.

Comment from TropNetEurop

Goa, a popular winter resort for European tourists who visit beach hotels and resorts along the coast, has previously been considered to be very low-risk for malaria infection for travellers. It appears that this cluster of cases of imported falciparum malaria, acquired in the area to the north of Panaji, the capital of Goa, has coincided with a period of intense rainfall (50% above average) in the Goan and Konokan region since October 2006 [4]. This may be the cause of increased vector breeding and transmission during the current rainy season.

The risk of infection will presumably decline with the coming dry season. Currently, however, there may be increased risk of malaria transmission and therefore all travellers who intend to visit this region of India are advised to use mosquito bite avoidance measures. Visitors may consider using WHO type IV prevention [5], which is mosquito bite prevention plus chemoprophylaxis with atovaquone/proguanil, doxycycline, or mefloquine, or they may consider travelling with emergency standby treatment. Anyone who becomes unwell while on holiday or shortly after their return should seek medical attention promptly. Falciparum malaria can be a life-threatening illness. The diagnosis can only be made if a careful travel history is taken, and testing done early, even for regions where malaria is not normally recognised. The risk in Goa will be monitored and we expect transmission to cease as the rainy season ends in early 2007.

Changes made in recommendations for travellers in some EU member states

In December 2006, Denmark's Statens Serum Institut changed its malaria advice until further notice, as a precautionary measure. Until there is information on possible chloroquine resistance, the new recommendation for Danish travellers to Goa is type IV chemoprophylaxis, as described above [3]. Previously no chemoprophylaxis was advised.

In Sweden, no changes in the general recommendations for travellers have been made [2] but the Swedish Institute for Infectious Disease Control has informed about the Goa cases on their home page and sent a letter to all departments of Infectious Diseases and Infectious Disease Control. In this letter it is stated that: "Until we know more about the present malaria situation, malaria prophylaxis can be considered for travellers visiting Goa. The drugs that might be used are Malarone, Lariam (mefloquine) or doxycycline". In addition, there have been several news spots in this topic on the national television.

No changes in the general recommendations for travellers have been made in Germany.

In addition, the recent cluster of malaria cases imported from Goa has also prompted the Advisory Committee for Malaria Prevention in United Kingdom Travellers (ACMP) to issue temporary change to its recommendations. The ACMP advises that travel advisors should highlight the risk of malaria, instruct on the use of mosquito bite avoidance measures [6], and recommend malaria chemoprophylaxis to those travellers who will be visiting Goa, particularly areas north of Panaji, and who will be remote from medical care. This advice remains in effect until further notice as the situation is clarified. The recommended chemoprophylaxis is chloroquine plus proguanil. Alternatives are mefloquine, atovaquone plus proguanil, or doxycycline.

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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 2007年3月5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	乾燥人フィブリノゲン		研究報告の 公表状況	ProMED/20070223.0668	公表国 アメリカ	
販売名 (企業名)	フィブリノゲンHT-Wf (ベネシス)					
研究報告の概要	<p>米国の科学者は、ヒトのブタ髄膜炎の北米での最初の症例を報告した。この患者は、髄膜炎で入院した以前には健康であった 59 歳のニューヨーク州北部在住の農夫である。この病院の予備的試験により、ブタに多い細菌で、髄膜炎を引き起こす Streptococcus suis の存在が明らかになった。Cornell 獣医薬大学の研究助手であり且つ獣医である Ruth Zadoks 氏は、農夫と彼の農場のブタに見付かった Streptococcus suis の DNA レベルの分析結果を示した。農夫の細菌培養とブタのサンプルによって、Zadoks 氏は、この患者が Streptococcus suis に実際に感染していると確認した。</p> <p>Streptococcus suis は、過去 20 年間ヨーロッパにおいて時々、ヒトに感染した。しかし、人々が常に罹っていたのは東南アジア、特に中国であり、そこでは、2005 年のアウトブレイクによって 204 人が感染し、38 人が亡くなった。2005 年には、南アメリカでも、アルゼンチンの最初の症例の報告があった。</p>					<p>使用上の注意記載状況・ その他参考事項等</p> <p>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フィブリノゲンを濃縮・精製した製剤であり、ウイルス不活化を目的として、製造工程においてリン酸トリ-n-ブチル (TNBP) /ポリソルベート 80 処理、濾過膜処理 (ナノフィルトレーション)、凍結乾燥の後、60℃、72 時間の加熱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。</p>
	報告企業の意見				今後の対応	
<p>ヒトのブタ髄膜炎の北米での最初の症例報告である。 Streptococcus suis はブタレンサ球菌で、直径 0.5~1.0 μm の球状細菌である。万一、原料血漿に Streptococcus suis が混入したとしても、除菌ろ過等の製造工程にて除去されるものと考えている。</p>				<p>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。</p>		

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Subject PRO/AH/EDR> Streptococcus suis, porcine, human - USA (NY)

STREPTOCOCCUS SUIS, PORCINE, HUMAN - USA (NEW YORK)

A ProMED-mail post

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US scientists have confirmed the 1st reported case of pig meningitis in a human being in North America. The patient is a previously healthy 59-year-old farmer from upstate New York who was hospitalized with meningitis. The hospital's preliminary tests revealed the presence of *Streptococcus suis*, a bacterium prevalent in pigs, which can lead to meningitis.

"This should heighten awareness of the possibility of this illness for people with the occupation of dealing with swine," said Kara Willenburg, MD, of Bassett Hospital. "But it should not affect the lives of the general public."

Farmers can contract the disease from handling pigs and their feces. Butchers are also at risk. Washing hands and cooking pork thoroughly can minimize the risk.

Ruth Zadoks, research associate and veterinarian at Cornell University's College of Veterinary Medicine, provided the insights and a DNA-level analysis of *S. suis* strains found in both the farmer and the pigs from his farm. With the farmer's bacterial cultures and the pig samples, Zadoks confirmed that the patient was indeed infected with *S. suis*.

"Even though we did not match the human strain with those of the pigs, the strain from the farmer matches superficially a strain found in both pigs and humans in Denmark and the Netherlands," said Zadoks. "Some strains are more likely to cause disease in humans."

S. suis has occasionally affected humans in Europe over the last 20 years. However, people have regularly contracted the disease in

Southeast Asia, especially China, where a 2005 outbreak resulted in 204 human cases with 38 deaths, and some 600 pigs killed. In 2005, South America also documented its 1st case from Argentina.

"It could be that the disease is spreading," said Zadoks. "But also we may be just better at recognizing it."

All human cases of *S. suis* have originated with an animal infecting a human. Public health officials have no fears that the pig bacteria will spread from one human to another.

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[This case represents the more classic meningitis presentation of human *S. suis* infection. Although it is stated that this case was the 1st in North America, a 2002 paper (Marie J, Morvan H, Berthelot-Herault F, et al: Antimicrobial susceptibility of *Streptococcus suis* isolated from swine in France and from humans in different countries between 1996 and 2000. *J Antimicrob Chemotherap* 2002;50: 201-209 available at <<http://jac.oxfordjournals.org/cgi/content/full/50/2/201>>) discusses 4 human isolates of *S. suis* from Canada.

In addition, the University of Iowa website (<<http://www.public-health.uiowa.edu/CEID/Suis.htm>>) regarding this organism states, "The bacterium has caused sporadic illness in other countries as well, including Canada, and a human case of infection with the bacterium has recently been described in the USA. Several investigators have suggested this low number of cases in the USA is due to under- or misdiagnosis, rather than a true absence of this disease in the human population." It is possible that the site is referring to the New York case.

The 2005 Chinese outbreak was atypical because most previous cases had been sporadic, not in an outbreak, and cases of streptococcal toxic shock syndrome (STSS) occurred. The outbreak was summarized in Yu H, Jing H, Chen Z, et al: *Emerg Infect Dis* 2006;12: 914-20 <<http://www.cdc.gov/ncidod/eid/vol12no06/05-1194.htm>>. Part of the discussion (with citations removed) is found below:

Beginning mid-Jun 2005, a major outbreak of *S. suis* killed 647 pigs in almost the same areas as the outbreak in humans. The outbreak in swine peaked around 20 Jul 2005 with about 4 dead pigs in each affected village. *S. suis* caused 98 percent of the deaths of these pigs in Sichuan during this period. All infected pigs came from backyard farms, usually with one sick pig in the herd. A pathogenic strain could have spread by distributing infected piglets to the backyard pig farms and then propagated among healthy pigs. The single ribotype identified in the investigation lends support to this theory.

The main risk factor for *S. suis* infection in the outbreak was direct involvement in slaughtering sick pigs and preparing carcasses

of pigs that died of unknown causes. Unlike professionals in modern abattoirs, the local farmers did not wear protective gear or gloves. Normally one or 2 persons carried out the procedure, which involved bloodletting through a neck artery, manually inflating the carcasses, scalding the pigskin with about 80 deg. C water, and splitting and shaving the skin with large knives. Scalding and shaving were often performed together. The farmers then sliced the meat into smaller pieces before cooking for food. The complete process of slaughtering could take more than one hour. Our study demonstrated that all patients had been infected during direct contact with blood or tissues of sick or dead pigs. Often, this may have occurred through direct exposure of skin wounds. Droplet exposure may also have occurred during slaughter or processing of carcasses, but we could not document this occurrence. The observed risk factors were consistent with those reported in other studies. No evidence of infection from eating cooked pork from these pigs was observed. The uncooked meat was shared with neighboring families, but these villagers normally do not eat raw meat or raw animal viscera. Person-to-person transmission was highly unlikely since we found no disease in family members, neighbors, or healthcare workers who had not been exposed to sick or dead pigs.

One missing link in the outbreak is the exact relationship between a dead goat in the early cluster of patients and the subsequent propagation of the *S. suis* infections. We could not confirm these 2 cases microbiologically. We speculate that *S. suis* caused these 2 early human infections because they occurred shortly after exposure to the dead goat, and because clinical manifestations in the 2 patients were similar to those of others in the outbreak. Human *S. suis* infection after exposure to sick goats has not been reported, despite isolation of the organism from these animals. In backyard farms where different animals are kept together, *S. suis* infection could have been transmitted between pigs and goats. Animal surveillance would help establish the role of animals other than pigs in carriage of the bacteria and the potential for causing human infections.

Clinically, 3 distinctive forms of human *S. suis* infection occurred, namely, STSS, sepsis, and meningitis. STSS has not been reported from *S. suis* infection, although it has been previously described in other streptococcal infections and [a similar illness from] *Staphylococcus aureus* infections. Unusual STSS-like illnesses brought the outbreak to the attention of local health authorities. A dose effect may explain the relatively high proportion of STSS in this outbreak. While other explanations like co morbid conditions, e.g., asplenia, diabetes mellitus, alcoholism, and malignancy, have been reported, this was not the case for the outbreak in our study, which involved previously healthy adults.

Laboratory examination confirmed virulence factors in the *S. suis* isolates from this outbreak. They include *mrp*, *sly*, and *ef*, although their precise clinical role has not yet been shown. These isolates (*mrp*⁺, *ef*⁺, *sly*⁺) are related to European strains that are considered to be more virulent than North American strains. Genome analysis could determine if novel virulence genes were involved. – Mod.LL.]

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[see also:
2006

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Streptococcus suis, porcine, human, 2005 – China (Sichuan) 20060411.1082
2005

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Streptococcus suis, porcine, human – China (20) 20051024.3099
Streptococcus suis, porcine, human – China 20050730.2217
Streptococcus suis, human – China (Hong Kong) 20050728.2196
Streptococcus suis, porcine, human – China (Sichuan) (02) 20050728.2194
Streptococcus suis, porcine, human – China (Sichuan) 20050727.2179
Undiagnosed deaths – China (Sichuan) (05): Strep. suis susp. 20050726.2169
Undiagnosed deaths – China (Sichuan): RFI 20050724.2131]

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