identified. Additionally laboratories were asked to report any such isolations to the national public health authority (Health Protection Agency) [2].

Subsequent to this, 34 laboratories across England and one from Northern Ireland have reported identification of 77 *Paecilomyces variotii* isolates from normally sterile sites, nearly all from blood culture, to the HPA. The HPA Mycology Reference Laboratory (MRL) would usually receive only 5 or 6 *P. variotii* isolates per year. No source for the suspected contamination has yet been identified. Different blood culture systems are in use at the different hospitals, reducing the possibility of blood culture bottles having been contaminated.

Preliminary information on the dates of isolation indicates that isolates were mainly identified from August onwards and that the problem seems to be continuing. Antifungal susceptibility testing of isolates suggests that two distinct strains are involved, some strains having high MICs to voriconazole and caspofungin whilst others appear more susceptible to these two agents. All strains are susceptible to amphotericin B and itraconazole. However, morphologically the isolates are similar and differ in appearance from the usual *P. variotii* strains. Isolates identified to date have a less powdery appearance, more floccose aerial mycelium and a less distinct khaki colour than is usual for *P. variotii* isolates identified in the UK .

P. variotii may be misidentified by laboratories as *Fusarium* or *Cladosporium* but can be distinguished by the production of long non-branching chains of oat-shaped cells produced from long, delicate phialides.

Discussion

Further investigation of these apparent pseudofungaemias is being undertaken. HPA staff are investigating the possibility of medical device contamination and would be interested to hear from other national health authorities observing a similar rise in *Paecilomyces* isolates. If you have any information, please contact Lorenzo Pezzoli at the Centre for Infections, tel.: +44 (0)20 8327 6441; email: lorenzo.pezzoli@hpa.org.uk

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A case of autochthonous *Plasmodium vivax* malaria, Corsica, August 2006

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A case of *Plasmodium vivax* malaria was diagnosed in Corsica in August 2006. This is the first case of autochthonous transmission of malaria to be reported in the region since 1972 [1]. Malaria is a notifiable disease in mainland France (including the Mediterranean island of Corsica). Rare cases of malaria have been observed after bites from infected mosquitoes that had been imported from endemic areas into airports and

sea ports or by transmission via contaminated blood transfusion or tissue grafts [2, 3, 4]. Corsica was endemic for malaria before 1953 and from 1965 to 1971. Because the *Anopheles* mosquitoes in Corsica may still have vectorial competencies for *P. vivax* [6], antivectorial measures (eradication of mosquitoes) are still taken. A small number of imported cases from endemic zones are reported in Corsica each year [1].

Epidemiological and entomological investigations were carried out into the case in August 2006. The patient, Patient Y, was a 59 year old man from southeast France who had stayed in Porto, a département of South Corsica, from early to mid summer 2006. At the beginning of August, he developed a fever and gastrointestinal symptoms, and after several days of illness, he was admitted to hospital. Malaria was suspected because of thrombocytopaenia (40 000 platelets/mm3). The diagnosis was made three days after admission and the patient was treated for acute *P. vivax* malaria and recovered. The patient had never travelled in endemic malaria areas and had not been inside any airport for at least 10 years. He had travelled to Corsica by ship from mainland France and had then travelled overland to the Porto area.

Possible link to earlier case of imported malaria?

Further epidemiological investigations found that another recent case of *P. vivax* infection had been reported in the Porto area. Patient X, who had previously visited southeast and southwest Madagascar, arrived in France at the end of June. He then travelled to Corsica, and stayed in Porto for two weeks at the beginning of July. After a week in Corsica, he developed a fever and was admitted to hospital a week later, where the diagnosis of *P. vivax* malaria was made. He was treated and recovered fully, then returned to Porto where he stayed until 1 August. Both cases of *P. vivax* infection were confirmed by the French national reference centre for malaria.

A retrospective epidemiological investigation undertaken from 1 June to 4 September 2006 by medical laboratories in Corsica, did not find any other *P. vivax* malaria cases that would suggest further circulation of the parasite in Corsica. So far, excluding the two *P. vivax* cases in Porto, only four imported malaria cases (one *P. ovale* and three *P. falciparum*) were detected in Corsica during the summer of 2006. This is within the expected range based on available data from previous years. From 4 to 20 September 2006, prospective active surveillance found no other autochthonous malaria cases.

Discussion

Madagascar is known to be an endemic country for *P. falciparum* and *P. vivax* [7]. The details of the imported case from Madagascar with onset in July, and of the case with onset in August, caused by the same species (*P. vivax*) and in the same place (Porto), in a patient with no travel to endemic areas suggests autochthonous transmission by local *Anopheles* mosquitoes [8,9].

This hypothesis was supported by the results of the initial entomological investigations in the Porto area, which found a mosquito breeding ground albeit with low numbers of *Anopheles* mosquitoes, in a fountain on 27 July 2006. The breeding ground was treated the same day using larvicide to eradicate the mosquito colony. An entomological investigation around the home of the Patient Y in southeast France at the beginning of September, did not find any *Anopheles* mosquitoes, but could not completely rule out the presence of this mosquito in May and June.

Conclusion

This autochthonous *P. vivax* malaria transmission on Corsica in August 2006, probably via the bite of a local *Anopheles* mosquito infected with *P. vivax* from a patient who had acquired infection in Madagascar, appears to have been unique because studies did not find other autochthonous malaria cases between 1 June and 20 September 2006.

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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Pneumococcal conjugate vaccine is efficacious against invasive disease with fewer doses than currently recommended

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A recent study in *The Lancet* reported on the effectiveness against invasive pneumococcal disease of the only pneumococcal conjugate vaccine (PCV) currently available in routine American healthcare settings [1]. Due to an unexpected manufacturing shortage, the 7-valent PCV was given not according to the recommended four dose schedule starting at 2 months of age, but with different schedules and at different ages. Effectiveness against vaccine serotypes for one or more doses was 96% (95% CI 93%-98%) in healthy children under 5 years of age, and 81% (95% CI 57%-92%) in children with co-existing diseases. Efficacy was also demonstrated against vaccine-related pneumococcal serotype 6A, but not for 19A.

These vaccine effectiveness results provide further evidence to support suggestions from immunogenicity studies that a three-dose schedule with two doses given in the first year of life, followed by a third dose in second year of life, yields antibody concentrations comparable to those offered by the official four-dose schedule [2].

A critical reader may challenge these findings because they arise from an observational rather than analytical study. The design of the matched case-control study, however, carefully addressed potential bias and confounding. Bias was minimised by rigorous methods in locating and enrolling control children. Many possible confounding variables were controlled for, such as known risk for disease and access to vaccines. Of the 1267 cases identified during the study period of January 2001 to May 2004, covering approximately 5 million child years, 62% were included in the analysis.

The accompanying Lancet commentary is provocative: in the light of these encouraging results on vaccine effectiveness against invasive disease, it asks how much more evidence is needed before the global