

described in this case report had no intestinal history or symptoms at all, considering the case as a blood stream infection. The macroscopic perioperative findings were compatible with the presence of granuloma/pseudotumor tissue surrounding the prosthesis.

An increased rate of pseudotumor formation has been described with metal-on-metal hip prostheses. Pseudotumors can present variable granulomatous reactions. Pain is the strongest predictor for pseudotumor presence.⁶

Pseudotumors are often associated with subclinical infection, may destroy massively host bone and soft tissue, and usually require revision surgery for treatment.⁷

In the present case, the pseudotumor samples yielded positive for *R. gnavus*, the same microorganism as the prosthetic joint sample.

We conclude that the microorganism mentioned should be considered as a potential cause of joint prosthesis infection.

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2529-993X/

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Malaria in Europe: Follow-up of autochthonous malaria in Greece and new risks



Malaria en Europa: seguimiento de la malaria autóctona en Grecia y nuevos riesgos

Dear Editor:

Concerning the current Refugee crisis in Europe,¹ we consider this moment opportune to comment upon the situation of the autochthonous malaria in Greece, focusing our thoughts on this newly raising concern.

As we commented upon in our previous paper,² malaria remained a rare disease in the EU during the period 2009–2012 but few notorious cases of autochthonous malaria in Greece at that time, triggered an Action Plan for the Management of Malaria (2012–2015) which was introduced in Greece during the spring of 2012 and carried out by Greek Health Authorities (HCDCP) in collaboration with the WHO (World Health Organization) and the European Center for Disease Prevention and Control (ECDC). The aim was to avoid its reintroduction and subsequent expansion in Greece. Surveillance results were successful on 2014 with none cases³ reported and, apparently very rapidly, the WHO has recently declared Malaria-free Europe⁴ area. However, cases of local-acquired malaria by *Plasmodium vivax* have been reported in Greece on 2015 and 2016.

In the light of these local-acquired transmissions occurred by vector-borne (*Anopheles* mosquitoes) from other humans who have been previously infected from a malaria endemic or epidemic area, the more imported malaria cases (*Plasmodium vivax* relapse

cases with dormant hypnozoites), the more locally-acquired cases are to be expected when imported cases transit areas with confirmed or suspected circulation of the competent vector. Potential risks exist when migrants transit Greece within the current migration flow. Official number of current humanitarian crisis in Greece are 41,138 migrants arrived in 2014, 856,723 in 2015 and 157,396 in 2016 (by 15/6/2016).¹

Table 1 shows the number of cases per year 2009–2015 and the average rate of autochthonous malaria cases during the study period (2013–2016) compared with previous one (2009–2012). Autochthonous cases and prevalence have both decreased with an average of 13 autochthonous cases and 0.0256 cases per million in the past 4 years compared with 19.25 autochthonous cases and 0.0382 on the previous study period but, the tendency from none on 2014 has around-turned to 6 cases and 4 cases occurred in 2015 and 2016 respectively.

Measures³ of the Action Plan (2012–2015) included active malaria case detection in the general and the migrant populations, screening of immigrants for malaria, administration of antimalarial drugs to immigrants with positive serology from malaria endemic countries (one course of prophylactic antimalarial treatment for *P. vivax* infection (Chloroquine + Primaquine)), closely monitor areas where sporadic malaria cases without travel history to a malaria country have occurred and vector control activities, among others.

According to the Health Authorities the risk in 2016³ for malaria in Greece is very low so, as previously advised for travelers: chemoprophylaxis is not recommended for visitors to areas where locally-acquired malaria cases have been occurred until today nevertheless, personal protective measures against mosquitoes remain strongly encouraged.

In conclusion, it can be said that autochthonous malaria remains at lower risk after specific action plans related in 2012 by Health Authorities but, newly potential risks related to the numbers of

Table 1

Total malaria cases reported, prevalence of malaria per 10,000 Europeans citizen in the EU and autochthonous malaria cases reported.

	Year								Average (2009•2012)	Average (2013•2016)
	2009	2010	2011	2012	2013	2014	2015	2016 ^a		
<i>Autochthonous malaria</i>										
Reported cases	7	4	42	20	3	0	6	4	19.25	13
UE population ^b (million)	502.2	5035.4	504.9	504.9	505.2	506.9	508.3	510.6	503.8	507.75
Prevalence ^b	0.0159	0.0119	0.0851	0.0396	0.0059	0	0.0118	0.0078	0.0382	0.0256

^a Data to 08/2016.^b Prevalence per million.

migrants transiting areas with confirmed or suspected circulation of the competent vector and, recent locally-acquired malaria cases may increase future autochthonous cases. This situation should be monitored by all relevant Authorities to minimize collapse of response capacities against risks of new cases of autochthonous malaria connected with this overwhelming Refugee crisis.

Funding

No funding has been received.

Authors contributions

Conceived the idea of the report: AO. Extracted and analyzed data: AO, JMR, IO MG. Wrote the paper: AO, MFLB. All authors have seen and approved the final manuscript.

Conflict of interest

None declared.

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