

## Investigating *Helicobacter pylori* infection in peripheral blood of patients with CHD

Table 2 - Polymerase chain reaction - enzyme-linked immunoabsorbent assay screening sera of patient with CHD and healthy normal controls for the presence of *H. pylori* DNA.

Patient samples	Age	od (nm)	Healthy controls	Age	od (nm)
1	61	0.170	1	59	0.152
2	57	0.118	2	54	0.134
3	59	0.136	3	63	0.164
4	64	0.131	4	61	0.169
5	56	0.144	5	54	0.146
6	48	0.162	6	49	0.132
7	55	0.157	7	62	0.170
8	62	0.163	8	55	0.150
9	49	0.148	9	56	0.149
10	52	0.136	10	51	0.167
11	48	0.133	11	48	0.134
12	53	0.141	12	63	0.165
13	62	0.140			
14	50	0.133			
15	56	0.142			
16	59	0.153			
17	48	0.170			
18	54	0.170			
19	49	0.129			
20	56	0.139			
Mean ± SD	54 ± 5	0.137 ± 0.01		56 ± 5	0.153 ± 0.01

PCR-ELISA - polymerase chain reaction - enzyme-linked immunoabsorbent assay, od - optical density  
CHD -coronary heart disease, SD - Standard deviation

agreement with the findings of this study.<sup>5</sup> The absence of *H. pylori* DNA in the peripheral circulation of patients with CHD observed in this study therefore it shows that *H. pylori* is not present in peripheral blood of patients with CHD. Markers have reported suggesting the presence of *Chlamydia pneumoniae* in coronary atheroma of patients with CHD. It would therefore be quite relevant to examine the atheromas for the presence of *H. pylori* infection to establish the link between *H. pylori* infection and CHD.<sup>6</sup> This study was performed using a simple practical, reliable, and sensitive colorimetric hybridization assay for the detection of amplified *H. pylori* DNA. The assay was a combination of a sensitive DNA hybridization reaction and a colorimetric protocol, similar to those of conventional enzyme immunoassays, widely used in routine clinical microbiology laboratories. The urease gene region *ure C* (glmM) of *H. pylori* was targeted, which is considered to be a suitable target site for quantitative PCR due to its high level of expression. Moreover, the *ure C* (glmM) has also been shown to be more sensitive and specific for detection of *H. pylori* infection.<sup>6</sup> Failure to detect *H. pylori* DNA among CHD patient specimens in this study by using a highly reliable, sensitive and specific technology supports the notion that in CHD

patients there is no evidence of persistent *H. pylori* infection at least in the peripheral blood.

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Suicide after treatment of chloroquine-resistant falciparum malaria with quinine

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Occasionally, unusual patterns of clinical manifestations of falciparum malaria involving the central nervous system are seen in Sudan.<sup>1</sup> Chloroquine is still regarded the first line treatment for falciparum malaria, although more than 70% resistance on the drug was reported in Khartoum and in Eastern Sudan.<sup>2</sup>

A 27-year-old male presented to New Halfa Teaching Hospital, Sudan complaining of fever, sweating, headache, vomiting, and backache for 10 days. He completed the full course of chloroquine 7 days before reporting to the hospital. His weight was 58 kg, fully conscious, with pulse rate of 95/minute, blood pressure of 110/70 mm HG, temperature of 38.7°C, with clear chest and there

was no palpable spleen or liver. His hemoglobin was 10.5 g/dl. The blood film confirmed the diagnosis of falciparum malaria. He started on 600 mg of quinine, as infusions in 5% dextrose, to be given 3 times daily until vomiting stops. Five hours later, in the early morning, the patient was found dead after hanging himself with his turban (Umama) in the corridor. We dug deep in the family and social history, and we found that he was a farmer, living a stable family life with his wife and 2 children and no history of mental illness.

Malaria can lead to acute psychosis, personality changes, amnesia, ataxia, apathy and depression.<sup>3</sup> Acute psychosis with transient encephalopathy was reported with mefloquine treatment, which is chemically related to quinine.<sup>4</sup> However, quinine itself was considered among the drugs, which should be considered in case of suicide or attempting to do so.<sup>5</sup> This patient was found hanging himself after the first dose of quinine, there is a remote possibility of hypoglycemia; hence, the explanation of mental changes. Falciparum malaria has been reported to cause hypoglycemia, either directly or as side effect of quinine, thus, this direct or indirect hypoglycemia can lead to mental changes and suicide.

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