

Werkgroep klinische parasitologie “eindeloos malaria”

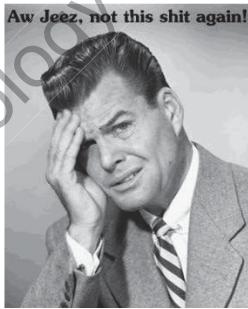
Don't tell me it's malaria again

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Parasitology

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Met dank aan Drs. Imro Vlasveld, Drs. Maria Konstantinovski, Prof. Dr. Leo Visser
en alle laboratoriummedewerkers van het KML



Don't tell me it's malaria again

Dutch Female, DOB 23-12-1970 (PIN 1218906)

- Seen at LUMC in 15th November 2016
 - Diagnosed with *P. falciparum* in Ghana around November 1st
 - Traveled 5 weeks before, West Africa
 - Hospitalized for 3 days, treated (IV and orally) in Ghana,
 - Back to NL, hospitalized at AMC (4-5 Nov), treated artemether/lumefantrine

Feeling well during the week

- Visited LUMC because 15th symptoms started again
 - dd: Incomplete treatment of malaria

LUMC/KML:

- RDT/QBC/microscopy//PCR
- (PCR: multiplex Pf, Pv, Po(2x), Pm, based on 18S)

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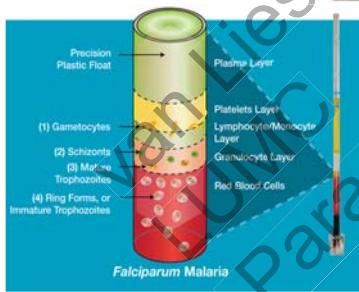
PCR: Adegnika et al. (2006); Wiria et al., (2010); > 2009 on all malaria requests

Diagnostic tests – 15 November 2016:

ICT – malaria RDT: T1 positive

QBC: negative

Microscopy: negative

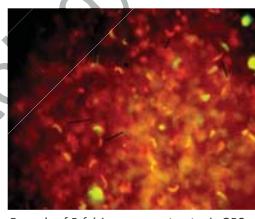


Quantitative Buffy Coat (QBC) test (acridine orange)



HRP-2 reactivity (T1 only)

- No aldolase (T2) reactivity
- P. falciparum* parasitaemia < 1% or < 50.000 asexual parasites/ μ l



Example of *P. falciparum* gametocytes in QBC

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LUMC/KML:

- ICT positive (T1), QBC negative, microscopy negative
- Clinic:

P. falciparum t=0,8, 24,48, 72,96

KML:

- PCR *P. falciparum* positive: Ct 37.2

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4

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January 3rd 2017

- Again high fever, headache, feels very sick, started 30th Dec
- Peaks on 30/12, 31/13, 2/1
- 4 days Algeria, 2 weeks Sudan, no prophylaxis
- Malaria?

Diagnostics

ICT – malaria RDT: negative

- Antigen detection not sensitive for low *P. falciparum* infections, or non-*P.falciparum* species

QBC: positive (but species not so clear)

Microscopy.....

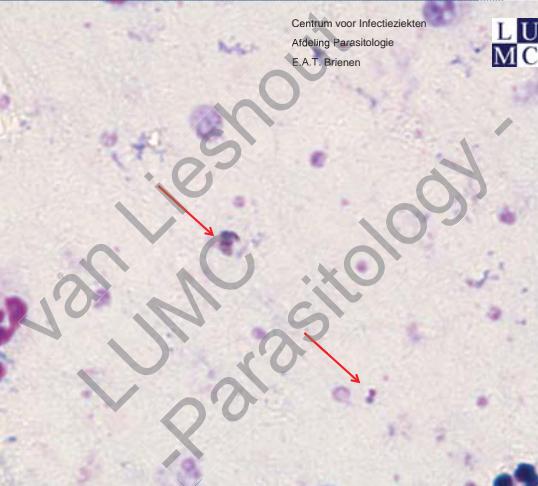


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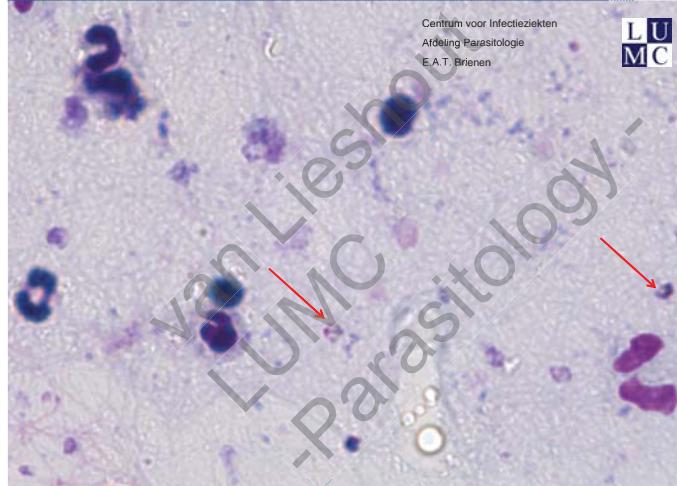
Diagnostics - microscopy

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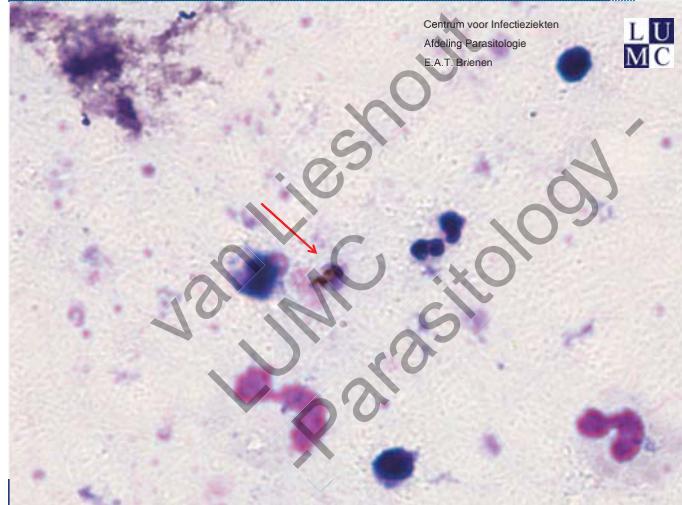


Diagnostics - microscopy

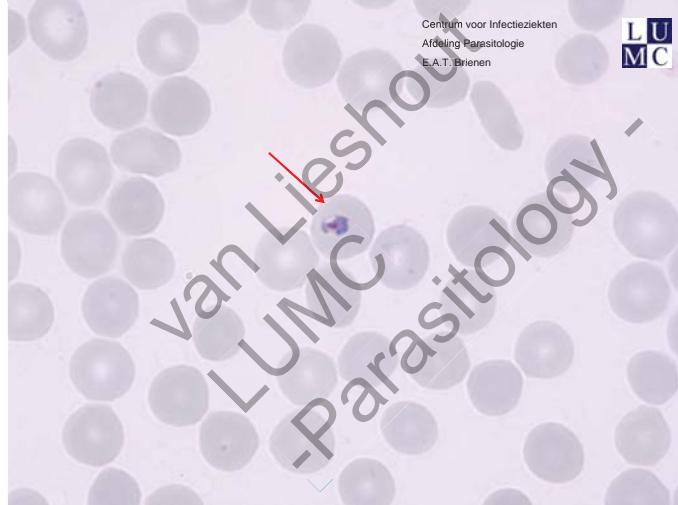
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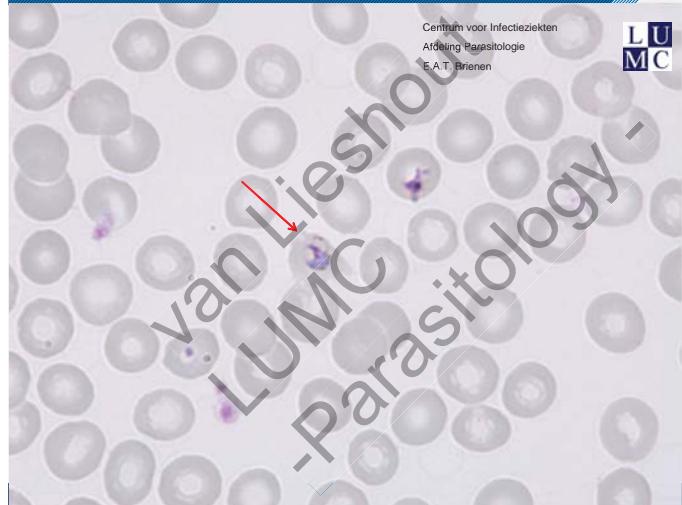
Diagnostics - microscopy



Diagnostics - microscopy



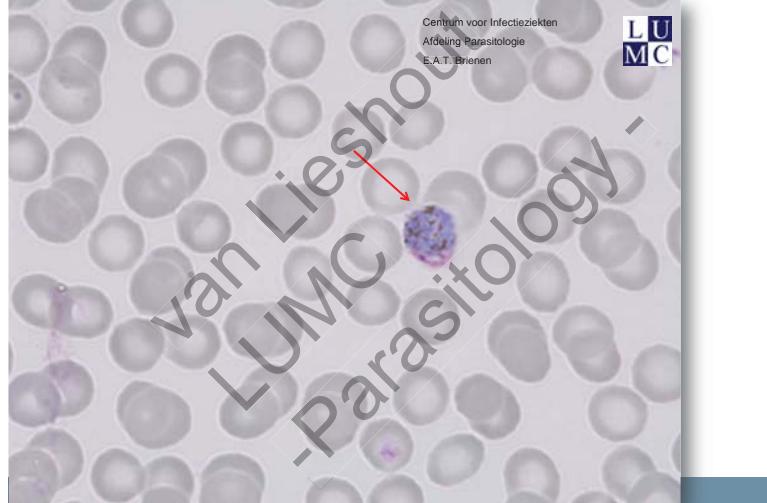
Diagnostics - microscopy



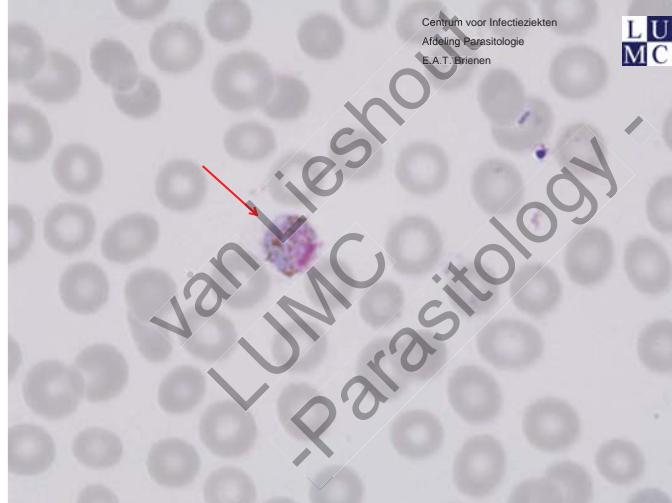
Diagnostics - microscopy



Diagnostics - microscopy



Diagnostics - microscopy



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Microscopy: *P. ovale*

- Hospitalized Jan 4th, very sick, a.o. photophobia (clinical symptoms of meningitis??)
- Again artemether/lumefantrine started, followed by Primaquine
- P. ovale*; PCR Ct – 25.9
- Improved, left hospital Jan 5th
- KML:
 - QBC/Microscopy: remains of parasites
 - PCR: Ct 33.4
- Follow-up Jan 13th, clinically strongly improved
- KML:
 - QBC/Microscopy/RDT: negative
 - PCR: negative

To conclude

- Very sick from *P. ovale* (photophobia)
- Atypical *P. ovale* morphology
- PCR helpful in the diagnosis
 - Rapidly negative after treatment
- Don't trust on RDT only

Next travel advise.....

Protect Yourself Against Malaria

