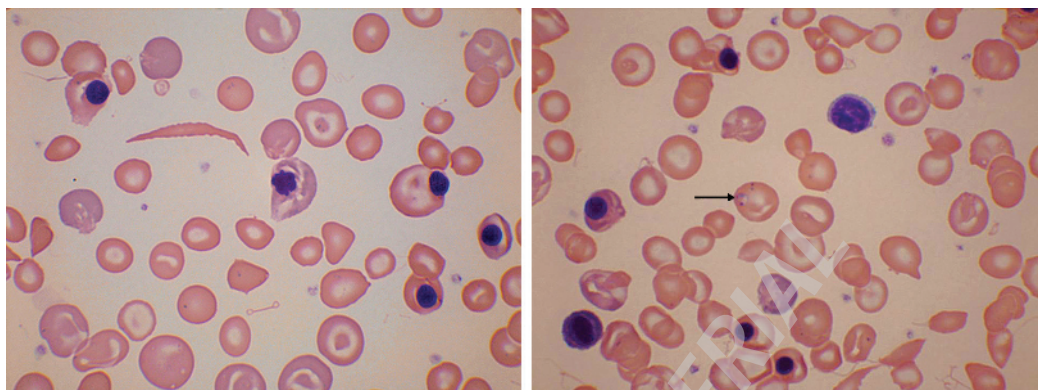


1 Malaria – one swallow makes a summer



A Nigerian woman who was 37 weeks' pregnant, recently arrived in the UK, presented to a general practitioner with tiredness and dyspnea. Her automated full blood count showed a 'white cell count' of $112 \times 10^9/l$, Hb 55 g/l, MCV 101 fl and platelet count $471 \times 10^9/l$. Examination of a blood film showed that the elevated 'white cell count' was due to large numbers of nucleated red blood cells and the true white cell count was $10.7 \times 10^9/l$. In addition, the film showed features of sickle cell disease (left image) and high performance liquid chromatography showed hemoglobin S as the major hemoglobin with no hemoglobin A being present. The lack of microcytosis indicated that the diagnosis was sickle cell anemia (SS) rather than compound heterozygosity for hemoglobin S and β^0 thalassemia. The patient, when questioned, stated that she had sickle cell trait and denied any knowledge of a diagnosis of sickle cell anemia.

Since the Hb was somewhat lower than expected (although compatible with sickle cell anemia in late pregnancy) the blood film was further examined to try to identify any other factors contributing to the anemia. There was marked polychromasia. There were no hypersegmented neutrophils and the MCV was considered compatible with the reticulocytosis. Unexpectedly, a *Plasmodium falciparum* ring form was detected (right). A careful search of the film disclosed a total of four parasites. A Giemsa stain showed Maurer clefts and immunological tests for an antigen specific to *P. falciparum* confirmed the diagnosis. Further questioning of the patient, who was afebrile, disclosed that 3 weeks earlier she had suspected that she had malaria and had taken a single tablet of Fansidar (pyrimethamine plus sulfadoxine) plus a paracetamol tablet. Further appropriate treatment for falciparum malaria was given.

It is stated that 'one swallow does not a summer make' but the detection of a single parasite does permit a diagnosis of malaria.

Original publication: Bain BJ (2012) Malaria – one swallow makes a summer. *Am J Hematol*, 87, 190.