

## HS1215

This blood film was prepared from a 28-year male who had just been back from an overseas trip for investigation of recurrent fever, shivering, haemolytic anaemia and jaundice. Examination of the peripheral smear shows that red cells are heavily infected with malarial parasites (Figure 1). Immature trophozoites appear in accolé forms of thin rings. The infected red cells are not enlarged and some pale cells are also noted. Multiply parasitized erythrocytes, with more than one parasite within them, are seen in approximately 40% of the red cells. The platelet count was markedly reduced. Some leucocytes display toxic granulations. Band forms and occasional myelocytes are seen. The morphologic features are suggestive of the infection of *Plasmodium falciparum* (Figure 2).

Malaria is a medical emergency that requires prompt diagnosis and treatment. Parasite counts of *Plasmodium falciparum* are important. The extent of parasitic infection can be quantified as either the number of parasites per microlitre of blood in a thick film or the percentage of infected red cells in a thin film. The “plus system” is an old method, which is simple but far less accurate for establishing parasite density in thick blood films; therefore it is no longer recommended. Temporal quantification of malarial parasites may be useful in monitoring the therapeutic efficacy of anti-malarial treatment.

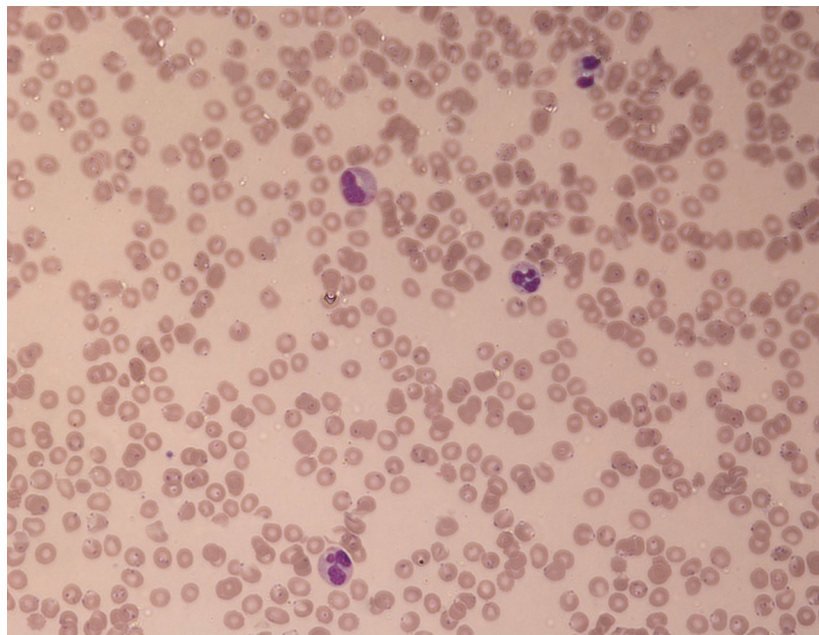


Figure 1. Immature trophozoites of malarial parasites in accolé forms of thin rings (40x magnification).

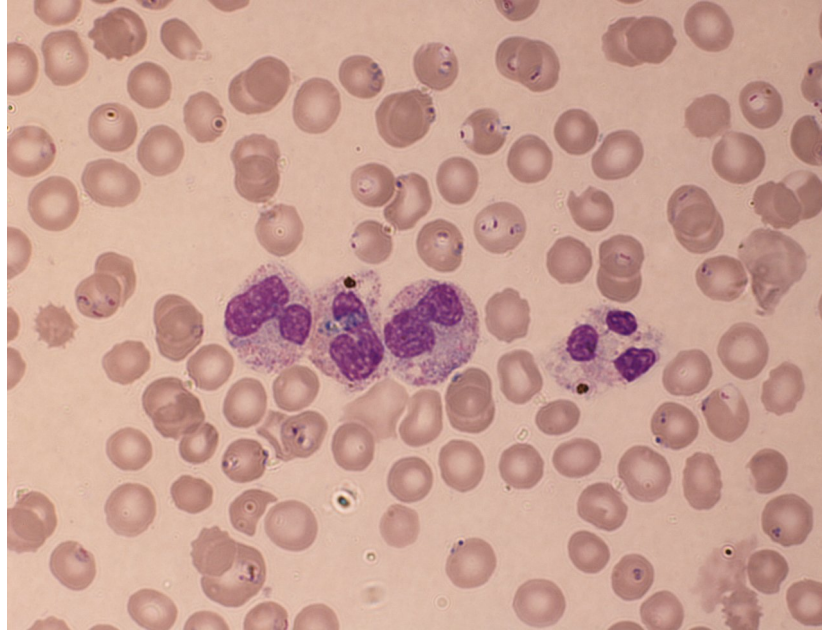


Figure 2. Multiply parasitized red cells and neutrophils in band form with toxic granulations (1,000x magnification).