

Successful Management of Severe and Complicated Malaria in Pregnancy

NHS

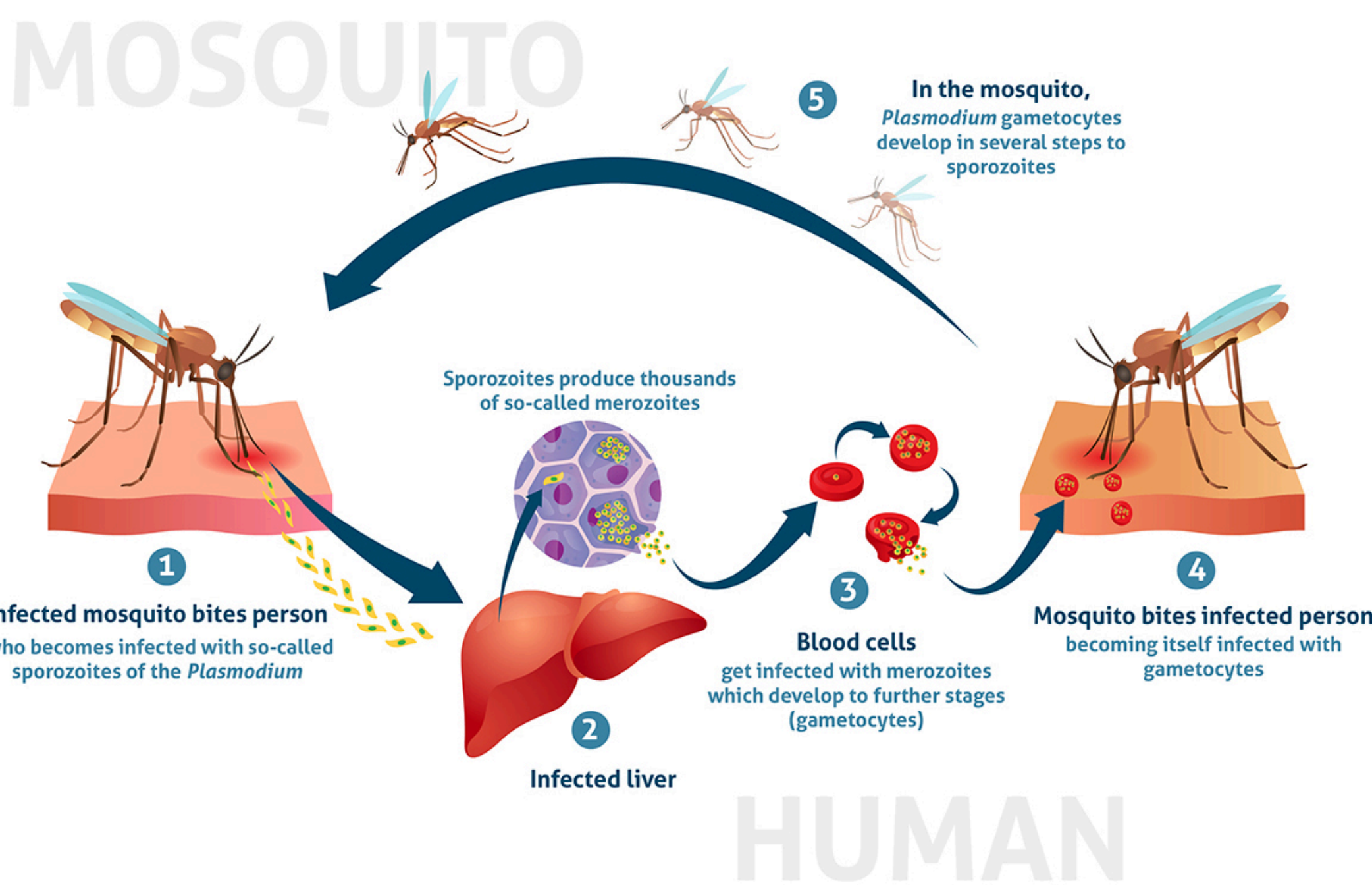
Dorset County Hospital

NHS Foundation Trust

Dr Charu Jain, Dr Suguna Balasundaram

Background

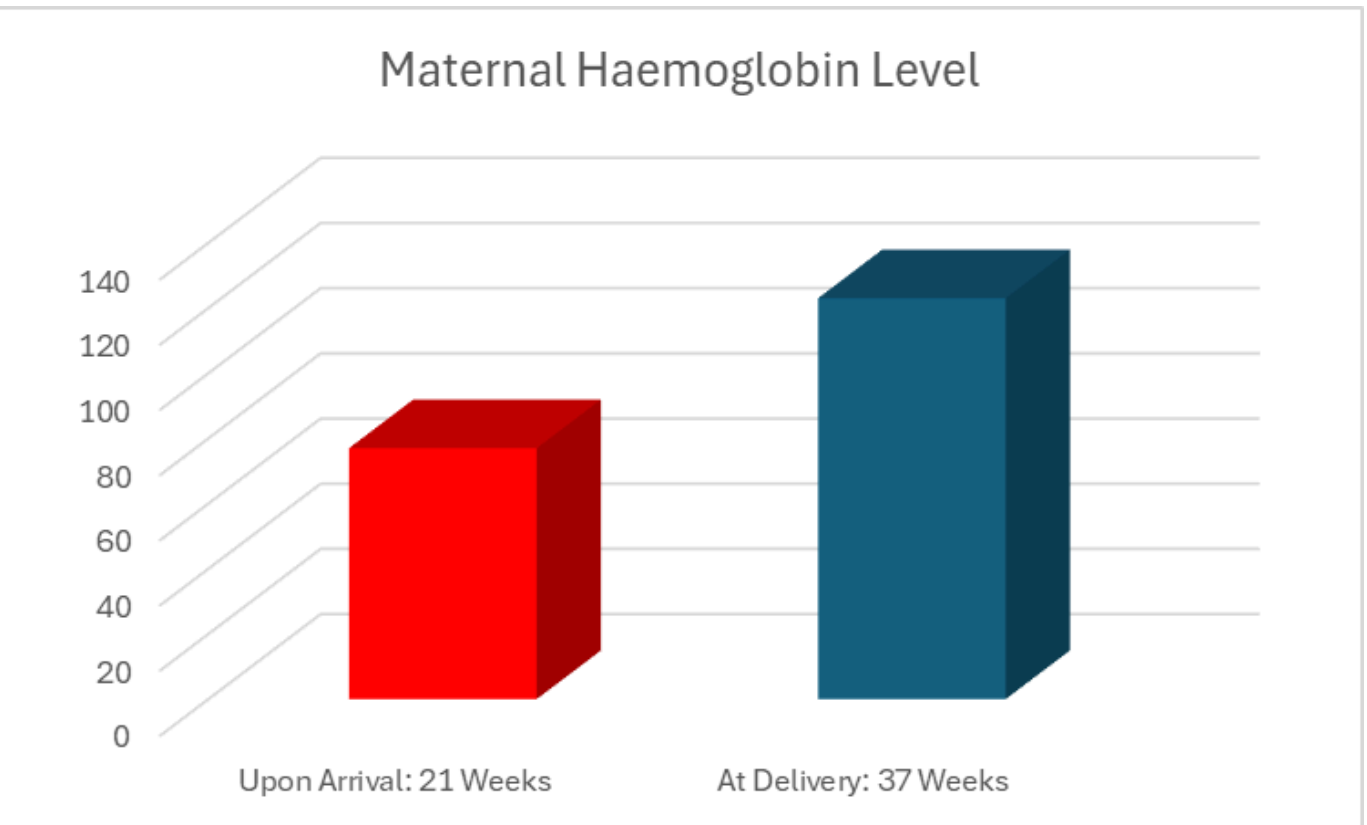
Malaria, a serious and potentially fatal parasitic infection, is the tropical disease most commonly imported into the UK. Pregnant women are at higher risk of acquiring the disease and suffering from more severe complications compared to non-pregnant women, leading to significant maternal, fetal (fetal growth restriction, stillbirth, preterm labour, congenital malaria) and perinatal morbidity and mortality. As a notifiable disease rarely seen in the UK during pregnancy, its diagnosis can be challenging, especially in pregnancy due to sequestration of parasites in placenta. This case is reported to highlight the appropriate maternal and neonatal treatment and follow-up of such a rare occurrence.



Fetal Managment Plan

- Neonatal Thick and Thin Blood Films - At birth and weekly till 28 days
- Placenta for Histology to look for sequestered malarial parasites
- Placenta for PCR - 1cm unfixed placental material in saline to Malaria Reference Lab
- Placental dab - cut edge of fresh placenta, blotting with sterile gauze, dabbed onto slides and fixed with methanol

Antenatal Management



Background

- 18 year old - African Origin
- Recently moved from Nigeria
- Late booker
- Primigravida
- No history of FGM
- Symptoms of weakness: Easy fatiguability and Lethargy
- Low haemoglobin of 77
- Blood films suggested of Plasmodium Falciparum, concentration <0.1%

Diagnosis

- Diagnosed of complicated malaria
- Immediate admission
- Multidisciplinary team involment
- Intravenous Antimalarial treatment
- Multiple IV Iron Infussions to build up haemglobin rather than blood transfusion to avoid the risk of development of antibodies
- Hospital for Tropical disease notified

Follow Up

- Consecutive Blood films (thick and thin)
- Repeated blood investigations weekly after discharge
- MDT surveillance
- Regular Growth scans
- Induction of Labour planned at 39 wk gestation

Follow up (continued)

- Growth scan showed fetal growth restriction at 37wk
- IOL at 37 weeks
- Intensive intrapartum monitoring
- Baby born vaginally- Eighth centile- required phototherapy for 24 hours

Discussion

Malaria is uncommon in the UK, and even rarer during pregnancy. Managing this rare, complicated case in the hospital was a significant learning experience for the entire department. Key learning points included the practical aspects of the disease, regular monitoring of maternal and fetal well-being through a multidisciplinary approach, interpreting investigations during pregnancy, planning delivery timing, neonatal follow-up, and ensuring the safety of both the patient and the team.

Conclusion

Managing complicated malaria can be challenging, highlighting the importance of prevention, prompt diagnosis, and treatment. Early multidisciplinary team involvement and continued follow-up can lead to successful outcomes for both mother and baby.

References

1. Cathcart SJ, Lawrence J, Grant A, Quinn D, Whitty CJ, Jones J, et al. 'Estimating unreported malaria cases in England: a capture-recapture study' Epidemiology and Infection 2010; 138(7): 1,052-1,058.
2. UKHSA. 'Imported malaria in the UK: statistics' (accessed 27 October 2022).
3. Chiodini PL, Patel D, Goodyer L, Ranson H. 'Guidelines for malaria prevention in travellers from the United Kingdom, 2022'.