E-Poster

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Peripheral Symmetrical Gangrene in Severe Malaria: Recognizing a Rare Cause of Limb Loss

Topic: Complications/Sequelae (ie Spasticity, Immobilization and Frailty)

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BACKGROUND

Malaria is a life-threatening infectious disease caused by Plasmodium species, Plasmodium falciparum being the most virulent. Severe malaria can lead to multi-organ dysfunction, including cerebral involvement, renal failure, and disseminated intravascular coagulation. Among its rare but devastating complications is Peripheral Symmetrical Gangrene (PSG), in which there is distal ischemic damage in two or more extremities, due to microvascular occlusion. PSG has a 35% mortality rate, with an amputation rate of 70–90%. This case presents a pediatric patient with severe malaria complicated by PSG, requiring intensive care management and surgical intervention.

CASE DESCRIPTION

A 14-year-old female was admitted with fever, odynophagia, and malaise. Medical history included a complete vaccination schedule from Angola, a previous episode of uncomplicated malaria treated nine years ago, and a recent trip to Angola without receiving travel vaccinations. Her symptoms worsened with vomiting, anorexia, dark urine and hypoglycemia (42 mg/dL), prompting admission to the Pediatric Intensive Care Unit. Laboratory tests confirmed Plasmodium falciparum infection with a parasitemia level of 10.4%. The patient developed severe malaria criteria, including metabolic acidosis, thrombocytopenia (< 10,000/µL), acute kidney injury, and hepatic dysfunction. She was initiated on intravenous artesunate and supportive care, including blood transfusions and hemodiafiltration for renal impairment. During hospitalization, the patient developed distal extremity gangrene due to hypoperfusion and disseminated intravascular coagulation. Despite acute medical management, necrosis progressed, necessitating surgical debridement and partial amputation of the distal phalanges of almost all fingers/toes of both hands (thumbs were spared) and both feet. On one-year follow-up appointment, the patient demonstrated full independence in activities of daily living, despite the amputations. She did not express the need or desire for prosthetic adaptation.

DISCUSSION

Peripheral Symmetrical Gangrene is a rare but severe consequence of malaria, often requiring surgical amputation. Early recognition and intervention is paramount to avoid fatal outcomes. In this patient's case, comprehensive supportive care and timely surgical intervention helped ensure survival and a successful recovery. Physical Medicine and Rehabilitation (PRM) consultations were conducted during hospital stay and were crucial to ensure optimal functional recovery, address mobility challenges and prevent secondary complications.

CONCLUSION

This case highlights the importance of malaria prophylaxis in travellers. Severe malaria complications, namely PSG, is a serious morbimortality-inducing condition which must be timely suspected and acted upon. Awareness among healthcare providers is crucial. Early referral to PRM specialists is key to optimize mobility, independence, and quality of life.

Statement of Disclosures

None

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