

FATAL OUTBREAK: MALIGNANT PERTUSSIS STRIKES, HEALTH AUTHORITIES ON HIGH ALERT

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Introduction

Pertussis is a vaccine-preventable disease caused by *Bordetella pertussis* bacteria, leading to highly contagious respiratory infections with systemic complications. Despite high global vaccine coverage, pertussis remains a significant epidemiological problem, with outbreaks occurring in developed and developing countries through a phenomenon called “pertussis resurgence.” While patients with pertussis have good outcomes in developed countries, mortalities from malignant pertussis (MP) can be as high as 70%. Managing patients with MP in a resource-strained centre is even more challenging and associated with higher morbidity and mortalities. We share three cases of malignant pertussis from our centre.

Case Description

Case 1: A 6-month-old non-Malaysian boy, home-delivered and not immunised, presented to the emergency department with a history of upper respiratory tract infection for two days.

Case 2: An 11-month-old Malaysian boy, home-delivered and only immunised at birth, presented to the emergency department due to multiple episodes of fitting on the same day.

Case 3: An 11-month-old Malaysian boy, home-delivered and non-immunised, presented to the emergency department due to prolonged bouts of cough for one week associated with facial congestion and cyanosis.

All three patients are infants, non-immunised against pertussis, have leucocytosis with neutrophil predominant, develop fitting and worsening of respiratory distress. Given the poor prognosis, withdrawal of care was opted for by the parents.

Discussion

Fast leukocyte growth, leucocytosis with neutrophil predominant during acute pertussis infection, co-infection, female sex, birth weight <2500g, non-immunised child, cyanosis, hypoxia and shock are associated with higher mortality among patients with pertussis. While the outcome is good in developed countries, achieving the same standard in a resource-strained district hospital is not easy. It poses a dilemma for clinicians when prioritising care and at the same time, managing limited resources.

Conclusion

The recent Covid-19 pandemic, growing of vaccine hesitancy population and socio-demographic factors may lead to lower vaccination among children, requiring aggressive interventions. In a resource-strain centre, managing severe and malignant pertussis is complex and may be associated with higher morbidity and mortality. Community-based intervention and vaccination during outbreaks are critical to reducing infections and preventing patient overload.

Keywords

Pertussis resurgence, malignant pertussis, whooping cough.