Poster No. 23

PALE STOOL: AN ATYPICAL PRESENTATION OF NEONATAL SEPSIS

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INTRODUCTION

Sepsis remains a leading cause of morbidity and mortality among neonates. Late-onset sepsis (LOS) is neonatal sepsis occurring after 72 hours of life, which can be fatal if misdiagnosed and left untreated. Here we report a case of neonatal LOS.

CASE REPORT

A baby boy at day-27 of life, who was born late preterm and had history of prolonged jaundice; presented with fever, reduced oral intake, abdominal distension, and passing pale stool for one day. The baby was lethargic, jaundiced, tachycardic, dehydrated with cold peripheries, and his abdomen was distended. He was diagnosed with biliary atresia in sepsis and the paediatric team was immediately alerted.

His blood results revealed leukocytosis, severe metabolic acidosis, mixed hyperbilirubinaemia, and no transaminitis (Table 1). His X-ray showed bowel dilatation with no pneumoperitoneum (Figure 1).

He was given fluid resuscitation with boluses of intravenous (IV) crystalloids and was started on IV cefotaxime and metronidazole. Nasal flow oxygen was given and nasogastric tube was inserted for bowel decompression. The baby had persistent severe metabolic acidosis and tachycardia requiring further fluid resuscitations with human albumin and sodium bicarbonate in the Paediatrics Intensive Care Unit. He was subsequently put on IV fluid maintenance with strict urine output monitoring and started on nasal high flow oxygen therapy. Ultrasound of his hepatobiliary system showed no evidence of biliary atresia. His C-reactive protein (CRP) was raised and his urine culture grew *Enterococcus faecalis*. The baby responded well and was discharged after a week.

DISCUSSION

The risk of LOS is high in premature and low-birth-weight neonates, with non-specific manifestations.[1-3] A high index of suspicion, combined with diagnostic tests including inflammatory markers, blood and urinary cultures, and radioimagings are necessary to identify the source of sepsis.[3,4] Optimization of airway, breathing, circulation, disability, and exposure (ABCDE) plus early referral are the cornerstone of management. [3] Neonates with apnea or respiratory distress should be intubated and oxygen therapy is necessary to optimize tissue oxygenation. Judicious IV fluids should be administered to maintain tissue perfusion whilst early empirical antibiotic therapy and prevention of hypothermia and hypoglycemia must be ensured during neonatal resuscitation.[3]

CONCLUSION

LOS in neonates requires a high suspicion index, prompt neonatal resuscitation, and early referral to ensure the best outcome and prevent mortality.

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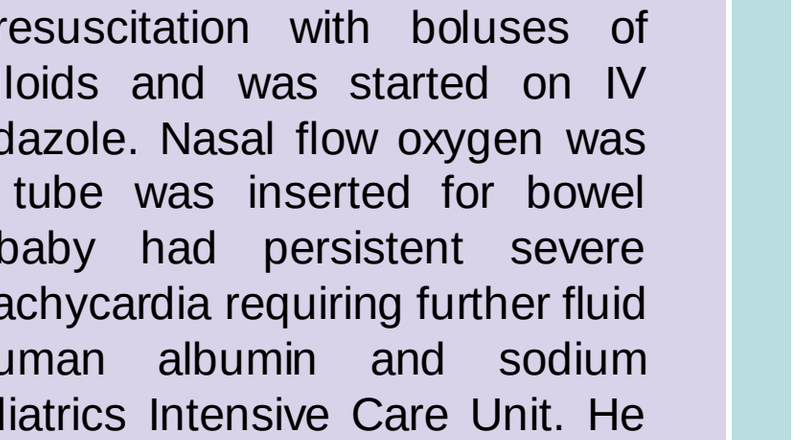
DECLARATION OF CONFLICT

Both authors declare that there is no conflict of interest regarding the publication of this article.

Figure 1a (left): Chest and abdominal X-ray on the day of admission.

Figure 1b (right): Abdominal X-ray on the second day of admission.



Investigation	Result	Units
Haemoglobin	13	g/dL
White blood cells	19	x 10^3/µL
Platelets	375	x 10^3/µL
Sodium (Na^+)	142	mmol/L
Potassium (K^+)	4.7	mmol/L
Chloride (Cl^-)	127	mmol/L
Urea	3.2	mmol/L
Creatinine	23	µmol/L
Total bilirubin	167.5	µmol/L
Direct bilirubin	41.5	µmol/L
Albumin	38	g/L
Aspartate transaminase	22	U/L
Alanine transaminase	14	U/L
Alkaline phosphatase	311	U/L
CRP	12.1	mg/L
pH	7.186	
Bicarbonate (HCO_3^-)	12.3	mmol/L
Base excess	-16.4	mmol/L
Lactate	1.3	mmol/L

Table 1: Blood investigations and results.

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