PP137 KNOCK! KNOCK! WHAT IS INSIDE MY BRAIN?

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INTRODUCTION

Ex-premature infants are at risk of seizure however there is no study that demonstrates they are at higher risk of developing subdural haemorrhage or effusion compared to termed infants. This case report is on an ex-premature infant who presented with multiple episodes of seizure and diagnosed to have subdural haemorrhage without any history of trauma.

CASE PRESENTATION

A 4 months old female, ex-premature at 33 weeks + 4 days who was born via spontaneous vaginal delivery presented with two times fitting episodes within 24 hours prior presentation while on breastfeeding. It was focal seizure affecting the right upper and lower limbs. The infant just recovered from fever and cough. Both parents deny history of trauma. In ED, the child was alert and actively moving all four limbs, not in respiratory distress or depression, has bulging fontanelle with unequal but reactive pupils and newly found strabismus. Neurological examination of the limbs reveal hyperreflexia on the right side of the upper and lower limbs. There were no external marks suggestive of trauma. She developed two further episodes of seizure of similar semiology. CT brain plain was performed and reported as bilateral subdural effusion. She was referred to neurosurgical team for drainage in view of still having seizure.

She underwent bifrontal burr-hole and washout procedure. Intraoperatively noted there is bilateral subdural haemorrhage (SDH) with high pressure liquefied SDH with no active bleed. The sample was sent for FEME, biochemical panel and culture. FEME and culture showed no growth and on gram staining there was no organism seen. Biochemical panel of the sample showed glucose of 1.8mmol/L and protein 3.46mmol/L. Child was extubated 48 hours later and remained well while the paediatric team is investigating for element of NAI.

DISCUSSION

Subdural haematoma (SDH) in non-traumatic children is uncommon. Emamhadi M et al conducted a literature review in 2017 that showed only 6 cases reported with one of it being traumatic aetiology initially. Even though the child is of ex-premature in nature, there is no study indicates that being ex-premature carry a significant risk to develop spontaneous SDH later beyond neonatal days. Other causes for atraumatic subdural haematoma include coagulopathy, cerebral aneurysm, atriovenous malformation, tumour, arachnoid cyst and even infection such as meningitis. Given the child is ex-premature infant, there is a small risk of the child having perinatal subdural haematoma progressing to chronic subdural haematoma. However, the most important aetiology needs to be excluded is non-accidental injury (NAI) including shaken baby syndrome. In children who has subdural haematoma or effusion who presented with seizure, seizure control can be obtain through initiation of antiepileptic drugs and/or surgical intervention such as drainage.

CONCLUSION

Any child who presented with multiple episode of seizure warrants a further neuroimaging such as a plain CT brain. Aside from resuscitation and stabilization during the fitting episode, care must be taken to ensure a thorough history and examination to exclude element of NAI. Indication for emergent neuroimaging in these children are: focal seizure or persistent