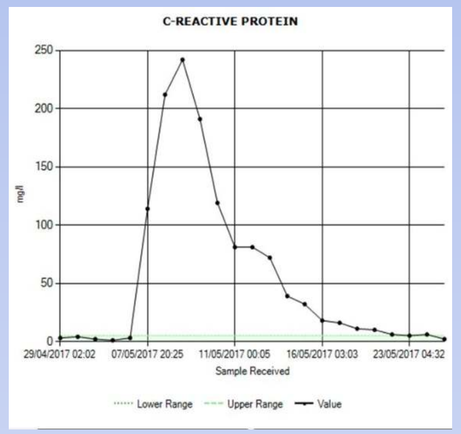
CASE REPORT*:* AN UNUSUAL CASE OF LATE ONSET DISSEMINATED STAPHYLOCOCCAL SEPSIS IN A PRETERM INFANT.

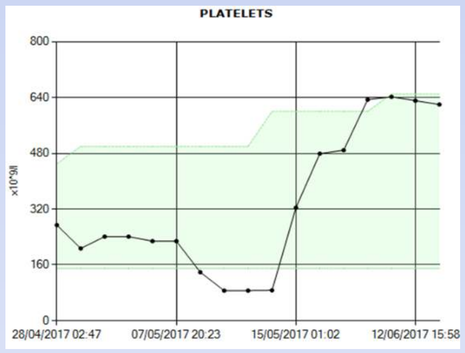
Shahzad Khattak, Ian Dady, Devdeep Mukherjee
Neonatal Intensive Care Unit, St Mary's Hospital, Manchester

BACKGROUND:
Percutaneous central venous catheters (PCVC) are commonly used in the neonatal intensive care unit**.** Preterm infants are more predisposed to develop catheter related blood stream infection (CRBSI) which happens to be the most common complication associated with PCVC.

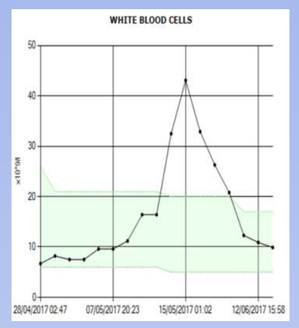
SUMMARY:
30 weeks male baby recovering in the neonatal unit was noted to be having increasing oxygen requirement and was ventilated on 10th day of life. Sepsis screen revealed a rising C Reactive protein (CRP).

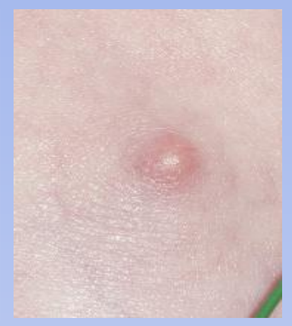


Blood results also showed Thrombocytopenia seen in the following graph.



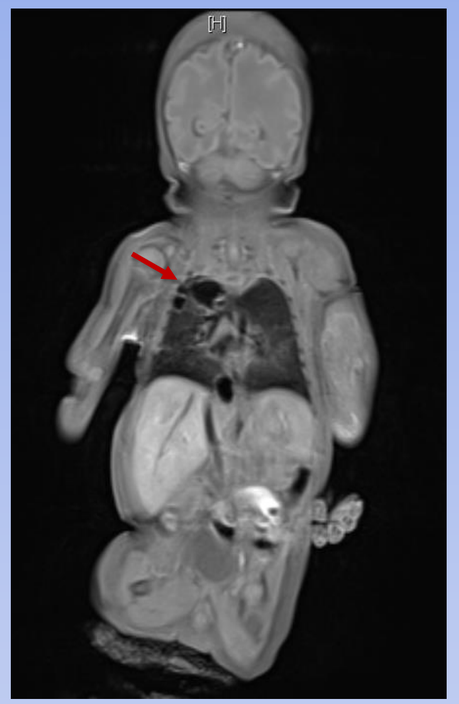
Blood results also showed a rise in White blood cell count as seen in the following graph. Image of the abscess overlying the xiphisternum can be seen.

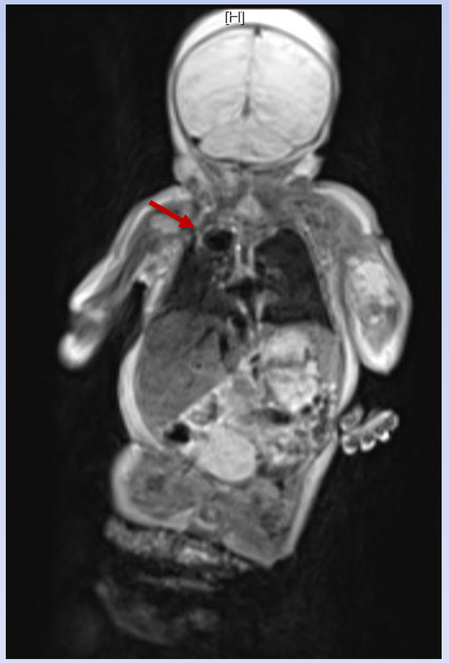




Blood culture grew *Staphylococcus aureus* (SA) and was positive for Panton Valentine Leukocidin (PVL) toxin. Within 24 hours he developed a dusky 4th toe on his right foot and an abscess overlying the antero-medial aspect of his left elbow and another overlying his Xiphisternum. During this period he was noted to develop a left sided wrist drop which was believed to be a possible complication secondary to the abscess in his left elbow. This was conservatively managed with physiotherapy. At discharge the power and tone of his left hand was near normal..
.

Echocardiography and ophthalmological examination was normal. Magnetic resonance imaging (MRI) of whole body showed cavitating lesions in the right upper lobe, right lung base and also in the left lung. He had a multi loculated collection in the left ante cubital fossa measuring 33x17mm and a lower pre-sternal collection measuring 13x4mm.





Baby had a long line in his right arm which was removed as it was believed to be the source of dissemination of the bacteria. He was initially started on Cefotaxime and Vancomycin and later changed to Flucloxacillin and Linezolid as per culture sensitivity. He was treated for total of 6 weeks of Flucloaxicillin and 10 days of Linezolid.

Baby responded well to antibiotics and was discharged without any sequelae.

DISCUSSION:
In a recent multicentric study from UK, the incidence of late onset sepsis was noted to be 3/1000 live births. 56% of infection were documented in males and 71% occurred in infants < 32 weeks. Neonatal infections are an important cause of morbidity and mortality. Sepsis due to PVL toxin producing SA can cause significant morbidity and mortality in neonates. PVL toxin has been documented to cause necrotising cavitating pneumonia as we saw in our patient which were not noted on the Chest X ray. He also had collections in left elbow and small presternal collection which resolved gradually. Proper screening should be done to rule out septic foci in neonates. We would like to highlight that MRI is a good non-invasive tool to demonstrate multiple septic foci in a patient with disseminated sepsis.

References:

Vergnano S, Menson E, Kennea N, Embleton N, Russell AB, Watts T et al. Neonatal infections in England: the NeonIN surveillance network. Arch Dis Child Fetal Neonatal Ed. 2011 Jan;96(1):F9-F14. doi: 10.1136/adc.2009.178798. Epub 2010 Sep 27.

Melles DC, van Leeuwen WB, Boelens HA, Peeters JK, Verbrugh HA, van Belkum A. Panton-Valentine leukocidin genes in Staphylococcus aureus. Emerg Infect Dis. 2006 Jul;12(7):1174-5.