HOT CROSS BABIES: 2 CASES OF KAWASAKI DISEASE IN 6-WEEK OLD INFANTS

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Day	CASE 1: 5-week old male		CASE 2: - 6-week old male	
1	Fever, irritability, tachycardia CRP 13mg/L, WCC 23 ANC:16, HB:11 Plt: 454 CSF: WCC 26 /mm ³ RCC: 4080/mm ³ protein:559mg/L glucose 3.8mmol/L Urine: WCC 0/mm ³ RCC 0/mm ³ NPA: RSV/ Influenza A/Influenza B negative Blood, CSF and urine cultures pending	Amoxicillin, Cefotaxime, Gentamicin, Acyclovir	4 days history of fever and irritability CRP 177mg/L, WCC 14.4, ANC 10.4, Hb 9.1, PLT 374 CSF: WCC 69 mm ³ (12% polymorphs, 88% lymphocytes), protein 740 mg/L, glucose 3.5mmol/l Urine: WCC 50-100 mm ³ NPA – RSV + Blood, CSF and urine cultures pending	Amoxicillin, Cefotaxime, Gentamycin
2	Widespread erythematous pleomorphic rash and unilateral cervical lymphadenopathy. No clinical improvement despite broad-spectrum antimicrobial cover, persistent fever and tachycardia Negative CSF and blood cultures, negative bacterial and viral PCRs in CSF and serum, sterile pyuria		No clinical improvement, persistent fever and tachycardia CRP 153mg/L, WCC 27, ANC 17, Plt 618, Hb 8.2 Blood culture: Coagulase negative Staphylococcus	
3	Conjunctival injection and red lips, ongoing fevers, tachycardia and irritability Sterile pyuria: WCC: 265/mm ³ . ECHO: structurally normal heart		No Clinical Improvement Urine culture: E. Coli, resistant to amoxicillin and cephalosporins	Cefotaxime changed to Meropenem, acyclovir added
4	Suspected KD: ongoing fever, rash, tachycardia to 180b/m, irritability CRP 178 mg/l Albumin 20g/L, Na+128 mmol/L.	Commenced IVIG 2g/kg Methylprednisolone Aspirin 80mg/kg/day	Repeat LP: WCC 50 mm ³ , protein 800mg/L	
6	Recurrent fever, rash, irritability and raised inflammatory markers, new joint swelling. ECHO: dilation of LCA and evidence of valvulitis with mitral and aortic incompetence.	Repeat IVIG 2g/kg and pulse Methylprednisolone 20mg/kg iv x 3/7.		
8	Fever deffervescence, improved form and less rash. Static inflammatory markers CRP: 55mg/L. ECHO: progressive dilation of LCA and RCA	Decision to add cyclosporine	Remained febrile, tachycardic Bloods: WCC 30, ANC 23, PLT 900 Peeling of finger tips noted – KD suspected	High dose IVIG 2gm/kg Aspirin 80mg/kg/day
10	Stabilized ECHO with improved valvulitis and no progression in dilation. No aneurysm.		After Initial deffervescence, re-occurrence of fever, persistent tachycardia, increase in CRP (165) and WCC (40), ANC (25.6), PLT 1288 ECHO: significant dilatation of left coronary artery (LAD + LCX), with less significant right coronary artery dilatation (RCA)	Given further IVIG, Methylprednisolone
14	Discharged home on low dose Aspirin (5mg/kg/day) with weaning plan for Prednisolone, Cyclosporine.		Repeat ECHO: increase in LAD dilatation	Cyclosporine initiated Tinzaparin at prophylactic dose
42	ECHO: Normal. Origin and proximal course of both the right and left coronary arteries now measure within normal limits for age. Valvulitis resolved. Continue on low dose Aspirin for first year of life with ongoing follow -up		ECHO: Non-occlusive thrombus of LAD, with further progression of LCX and LAD aneurysm Persistent but stable 7mm LAD aneurysm at 8/12	Admission to ICU for CVC placements and administration of Abciximab, heparin and high dose aspirin Switched to Warfarin after 8 months

Discussion:
Infants under 3-months of age account for less than 2% of KD cases and represent a high risk population with up to 35% developing coronary artery abnormalities. The symptoms are frequently incomplete, fever more likely attributed to bacterial or viral sepsis and diagnosis delayed. Our 2 patients, of similar ages and presentation, who received similar treatment, albeit at different time points in their illness, experienced different outcomes. This underscores the need for early suspicion of KD and an aggressive approach to anti-inflammatory therapies. KD should be considered in any infant with persistent fever and rising inflammatory markers despite seemingly appropriate treatment.