

Kawasaki Disease (KD) remains one of the leading causes of acquired heart disease in the UK. KD should be considered in any child under the age of 16 with fever for more than 5 days. Prompt treatment is necessary to avoid long-term cardiac sequelae. Diagnosis can be challenging as no specific test is available. BCG reactivation has been described as a specific sign of KD.

Case summary

An 8 month child of Italian and Somali origin presented with fever and painful neck swelling. She was irritable and had a maculopapular rash. A tender 2x3cm right cervical lymph node was palpable. Investigations revealed raised inflammatory markers with thrombocytosis. Intravenous antibiotics were commenced for suspected lymphadenitis. She remained irritable with fever overnight. Her BCG scar appeared indurated and erythematous (figure 1) on day 4 of the illness and her conjunctiva were injected red. Subsequently it was suggested this could be early Kawasaki Disease (KD).

By day 5 she had fever for 5 days, rash, conjunctival injection and lymphadenopathy which led to the diagnosis of Incomplete KD. This diagnosis was reinforced by the presence of the reactivated BCG scar, which was initially noted in the ED. Immunoglobulins and high dose aspirin were commenced. She improved clinically and was reviewed by the cardiologist. Her 6 week ECHO demonstrated no evidence of cardiac aneurysms.

Conclusion

Rashes are very common, especially in ED. BCG reactivation has been described as a specific sign of KD. Induration of the BCG scar may be mediated by the interactions between mycobacterial and human homologue heat shock proteins. With an increasing uptake of BCG vaccination in infants in the UK, it is likely this clinical sign will become progressively common. Reactivated BCG is a simple clinical sign that doctors in ED can look for when assessing febrile children. Early recognition will lead to prompt diagnosis of KD, early administering of immunoglobulins and potentially favourable outcomes.



Figure 1: An inflamed, erythematous reactivated BCG scar

Learning points:

- 1. Reactivated BCG is a simple clinical sign that doctors in ED can look for when assessing febrile children.**
- 2. Early recognition will lead to prompt diagnosis of KD, early administering of immunoglobulins and potentially favourable outcomes.**