Algorithm for Child presenting with an atraumatic limp

1. Consider X-ray AP pelvis if not weight bearing\(^1\) (X-ray frog leg lateral view if SUFE suspected)
2. Bloods\(^2\): FBC, ESR\(^3\), CRP

Normal X-ray

Check for risk factors:
1. Not weight bearing
2. History of fever (> 38.5 C)\(^1\)
3. WCC >12x10\(^9\) cells/L
4. ESR\(^2\) ≥40

If one or no risk factors present and CRP <20 mg/L

Likely transient synovitis

1. Discharge home with leaflet and advice to return if symptoms worsen or child unwell
2. Paracetamol/Ibuprofen for pain relief
3. Review by GP in 1/52

If one or no risk factors present but CRP >20 mg/L

Discuss with Registrar

If 2 or more risk factors present +/- CRP >20 mg/L

Consider septic arthritis/Osteomyelitis

Refer to Orthopaedics

X-ray suggestive of Perthes or SUFE or bony pathology

Refer to Orthopaedics

1For the purpose of the above algorithm, a history of temperature of >38.5 C during the week before the initial presentation (Kocher’s criteria) or temp > 38.5 in A&E is considered to be a significant fever.

2In a non toxic, well looking child with mild limp in who transient synovitis is suspected, x rays and bloods are not routinely indicated. Discuss with Registrar if in doubt.

3ESR sample should be taken in a 4 ml adult EDTA tube (1 ml of blood is sufficient in most labs)

Kocher’s criteria [3] are highlighted in ‘red’. If any of the ‘red’ features are present, discuss with Registrar. In Kocher et al’s study (1999), the probability of having septic arthritis was 3% with one predictor, 40% with two predictors, 93.1% with three predictors and 99.6% with all four predictors. If none of the criteria was positive, the probability of septic arthritis was less than 0.2% [3]. Caird et al in 2006 showed that C-reactive protein level of >20.0 mg/L can be an independent risk factor strongly associated with septic hip arthritis.[4] The clinical prediction rules of Kocher and colleagues are not meant to supplant clinical judgement, but they may be used to help decision making.

Algorithm put together by Dr Rajashree Ravindran with input from paediatric, ED and orthopaedic teams at Whips Cross and Barts and the London Hospitals, 2011. Please acknowledge this if you use her algorithm and patient information leaflet.

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