

Systematic reviews of bruising in relation to child abuse-what have we learnt: an overview of review updates.

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Evid Based Child Health. 2013 Mar 7;8(2):255-63.

Pubmed Abstract

<http://www.ncbi.nlm.nih.gov/pubmed/23877882>

BACKGROUND:

Dogma has long prevailed regarding the ageing of bruises, and whether certain patterns of bruising are suggestive or diagnostic of child abuse.

OBJECTIVES:

We conducted the first Systematic Reviews addressing these two issues, to determine the scientific basis for current clinical practice. There have been seven updates since 2004.

METHODS:

An all language literature search was performed across 13 databases, 1951-2004, using >60 key words, supplemented by 'snowballing' techniques. Quality standards included a novel confirmation of abuse scale. Updates used expanded key words, and a higher standard for confirmation of abuse.

RESULTS:

Of 1495 potential studies, only three met the inclusion criteria for ageing of bruises in 2004, confirming that it is inaccurate to do so with the naked eye. This was roundly rejected when first reported, generating a wave of new studies attempting to determine a scientifically valid method to age bruises, none of which are applicable in children yet. Regarding patterns of bruising that may be suggestive or diagnostic of abuse, we included 23 of 167 studies reviewed in 2004, although only 2 were comparative studies. Included studies noted that unintentional bruises occur predominantly on the front of the body, over bony prominences and their presence is directly correlated to the child's level of independent mobility. Bruising patterns in abused children, differed in location (most common site being face, neck, ear, head, trunk, buttocks, arms), and tended to be larger. Updates have included a further 14 studies, including bruising in disabled children, defining distinguishing patterns in severely injured abused and non-abused children, and importance of petechiae.

CONCLUSIONS:

Systematic Reviews of bruising challenged accepted wisdom regarding ageing of bruises, which had no scientific basis; stimulated higher quality research on patterns of bruises distinguishing abusive and non-abusive bruising patterns, and highlighted the benefits of regular updates of these reviews.