Raccoon eye and Battle’s sign in an infant with multiple Wormian bones

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DESCRIPTION
An 8-month-old girl presented with a right raccoon eye and right Battle’s sign (figure 1A,B), which are signs of a basal skull fracture, after a fall from a height of 40 cm the previous day. A head thin-slice CT scan revealed a right parietal bone simple fracture (figure 1C,D) and subcutaneous swelling. There was no cerebrospinal fluid leakage in her ears or nose, and no other signs of a basal skull fracture. The sensitivity of CT scan for diagnosing basal skull fractures is low, and as the specificity of raccoon eye and Battle’s sign is extremely high, the patient was diagnosed with a basal skull fracture. The possibility of abuse was considered, but there were no other fractures, and no intraretinal bleeding on funduscopy. Follow-up MRI showed no leptomeningeal cyst. Three-dimensional head CT revealed multiple Wormian bones (figure 1D). Wormian bones are considered normal variants, but if >10 Wormian bones are present, the presence of underlying diseases such as osteogenesis imperfecta should be considered. Our patient had a low lumbar bone density (0.225 g/cm²). As she had >10 Wormian bones, we considered the possibility of her having an underlying condition associated with fractureurability, but genetic testing did not reveal any mutations characteristic of osteogenesis imperfecta. No new fractures occurred during the year of follow-up.

CONTRIBUTORS
YF drafted and revised the initial manuscript. SK, GI and SY critically reviewed the manuscript for important intellectual content. All authors read and approved the final manuscript.

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