Buckle Fracture of the Distal Radius in Pregnancy and Lactation-Associated Osteoporosis: A Case Report and Literature Review

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Abstract

Background: Osteoporosis is a characterised by low bone mass, increase in bone fragility and increased susceptibility to fractures. Pregnancy and lactation-associated osteoporosis (PLO) is a rare disease which occurs in the third trimester of pregnancy and during the lactation period classified by transient reduction in bone mineral density. Severe back pain is a common clinical manifestation. Many cases of PLO are associated with hip fractures and vertebral compression fractures, a fracture of the distal radius is rarely reported. **Case report:** A 30-year-old female presented to the emergency department following a fall on an outstretched hand. She was four months post-partum of her second pregnancy. A radiograph of her arm showed an un-displaced extra-articular buckle fracture of the distal wrist. She was reviewed for prolonged back pain during her first and second pregnancy by the orthopaedic and rheumatology team and was managed conservatively. PLO predominantly affects the thoracolumbar region; however, the present case shows PLO is a systemic disease that can also affect distal joints such as the wrist. **Conclusion:** There is limited epidemiological data on PLO. Previous research has shown a prevalence of 4-8 patients per million population. Doctors and patients will benefit from having more awareness of PLO to avoid a missed diagnosis in pregnant women suffering from low back pain, hip pain and fractures caused by micro trauma. Additionally, PLO can have a significant impact on mental health, quality of life and capacity to work. Therefore, accurate diagnosis and individualised treatment will aid in optimised pain relief and functional recovery.



Biography

Dr Craine is a senior house officer doctor in Blackpool, United Kingdom. She completed medical school in 2022 at the University of Buckingham. At medical school she took part in biomedical research investigating haemolysis in glucose-6-phosphate dehydrogenase (G6PD) deficiency following administration of nitrofurantoin. Before medical school she completed an MSc in Public Health and Clinical Nutrition at University College London (UCL) where she completed her thesis in nutrition and dietetic interventions in patients with medulloblastoma. She presented her findings at the Children's Cancer Leukaemia Group (CCLG) conference at Great Ormond Street Hospital, London. She is completing an audit in caesarean section in second stage labour and will apply to Obstetrics and Gynaecology speciality training in November 2023.

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