

## Response To Reviewers

### Manuscript #: 78605 (Calcium Pyrophosphate Dihydrate Crystals in a 9-year-old with Osteomyelitis of the Knee: A Case Report)

We would like to thank both reviewers for these insightful comments. We have responded to each comment individually below.

Reviewer #1:

**Scientific Quality:** Grade C (Good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Major revision

**Specific Comments to Authors:** The manuscript described a case of calcium pyrophosphate dihydrate crystals knee with osteomyelitis in a 9-year-old boy, which is extremely rare given so young an age and lack of genetic abnormalities or related metabolic conditions for CPPD. The case highlights the unidentified relationship between the concurrent osteomyelitis and CPP crystals in pediatric patient. However, there are still some concerns regarding the manuscript: 1) The osteomyelitis and soft tissue abscess were diagnosed only by MRI, were there any bacterial culture and drug sensitivity test outcome for diagnostic and therapeutic basis?

Thank you for these thoughtful comments. We did not perform any cultures of the bone or drug sensitivity tests due to the patient's improving status on IV antibiotics. By the time the MRI was performed, the patient's CRP had normalized and clinically he had greatly improved. We added a sentence on Line 123-124 of the updated manuscript to address this. We did perform blood and fungal cultures of the synovial fluid on admission, which were both negative for any growth. We added this information to the manuscript (Line 90). While we agree these studies may have added to the academic value of this case report, we do not believe they were clinically necessary.

2) In patients at young age who present with CPPD disease, related iron studies and measurement of serum calcium and magnesium, alkaline phosphatase, parathyroid hormone are recommended for associated metabolic diseases, were these studies having been performed in the case for evidence?

We added the patient's serum calcium and alkaline phosphatase on presentation to the report (Line 84-85). We did not perform screening for other metabolic conditions associated with early onset CPPD disease, such as hyperparathyroidism and hemochromatosis. Clinically, this was done due to a focus on treating the patient's osteomyelitis and lack of family history or associated symptoms connected to such metabolic disorders. However, we agree that this is a limitation of this case report and have added it to our limitations (Line 178-180).

3) The legends of figures described too simply.

We have added more detail to the figure legends to better describe the abnormal pathology being presented.

Reviewer #2:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** Thank you for the opportunity to review this paper. I think this is an interesting manuscript entitled "Calcium Pyrophosphate Dihydrate Crystals in a 9-year-old with Osteomyelitis of the Knee: A Case Report." The article has scientific interest, is well written and results sound. however, I would like to make one suggestion to improve it: Figure 1 and 2 have only titles. Put the representative figure legends.

Thank you for these comments. We have added more detail to the figure legends to better describe the abnormal pathology being presented.