



Recurrent Pelvic Aneurysmal Bone Cyst Treated With Doxycycline: A Case Report

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Abstract

Background: Aneurysmal bone cysts (ABCs) are locally aggressive, non-cancerous bone lesions that are rare,

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the remaining cyst wall tissue which was sent for pathology. Under uroscopic visualization, extensions of the cyst were probed with a curette to ensure all walls were accessible. The cyst was then irrigated with normal saline. 300 mg of doxycycline was diluted in 3 mL of normal saline and delivered along the cavity walls. The cyst was subsequently filled with morselized iliac crest bone graft and demineralized bone matrix (DBM). All parts of the cyst except the deepest portion of the ilium, which was difficult to access, appeared well-grafted.

Outcome and Follow-up

At her two-week and three-month follow-up visits, the patient was convalescing well and ambulating without difficulty. On exam, the incision at the right pubis was well-healed without obvious infection. The posterior iliac crest incision site was also well-healed. Radiographs at each respective visit showed increasing graft incorporation and homogeneity. (Figure 7, Figure 8). The patient will have regular, 6-month visits to assess her long-term outcome.

Discussion

Aneurysmal bone cysts are slightly more common in females and often associated with USP6 gene rearrangement [9], with a high recurrence rate (~ 25%), particularly in younger children. Until

may be augmented with sclerosing agents such as anti-cancer drugs, which can have harmful side effects. These effects may be mitigated with the use of doxycycline, whose anti-cancer properties and more desirable toxicity profile are proving to be beneficial in this population. Continued follow-up with our patient will hopefully help add to the current literature supporting doxycycline's use in treating recurrent ABCs.

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