

Management Of Aneurysmal Bone Cyst Distal End Of Tibia With Sclerotherapy - Minimally Invasive Novel Treatment - A Case Report

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ABSTRACT:

INTRODUCTION: Aneurysmal bone cysts are benign tumors that usually present in childhood. Aggressive forms have been described, which are often treated with surgery that entails major resection and reconstruction. Polidocanol sclerotherapy has recently been reported to have excellent results and promises to replace operative treatment. **BACKGROUND AND PURPOSE:** Recent data suggest that percutaneous sclerotherapy is a safe alternative to surgery for the treatment of Aneurysmal bone cysts. We present our experience with this method. **INTERPRETATION:** Our results show that percutaneous chemotherapy with polidocanol has high efficacy in the treatment of aneurysmal bone cysts, with a low frequency of side effects. our findings corroborate the data presented in previous publications. **CONCLUSION:** Management of aggressive aneurysmal bone cysts has thus far relied on open surgery. we propose that no operative treatment with polidocanol is efficient even in the aggressive form of an aneurysmal bone cyst.

KEYWORDS: Aggressive aneurysmal bone cysts, polidocanol, sclerotherapy.

INTRODUCTION :

Aneurysmal bone cysts (ABCs) are rare expansile osteolytic tumors with an annual incidence of 0.14 per 105; they are usually diagnosed at adolescence, and are equally rare in both sexes¹. Any bone may be involved but most commonly proximal humerus, distal femur, proximal tibia, spine accounting for 15 to 20% vertebral lesions.

AIM :

Aim of our article is the applicability of a simple non operative method for the treatment of ABC. Polidocanol is an endo venous sclerosing agent to treat varicose veins since 1960's and has been recently shown to be effective in treating ABC².

ASE REPORT:

INFORMANT-MOTHER

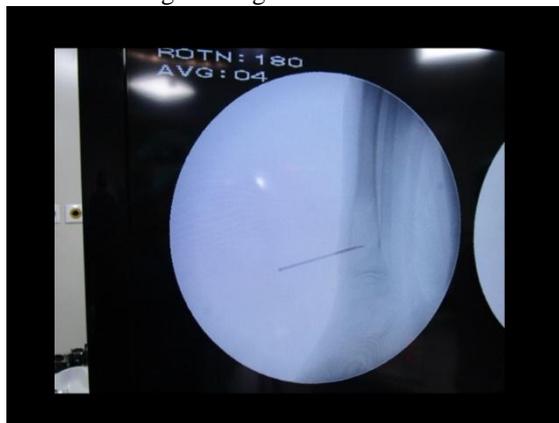
- A 2 year old boy brought with chief complaint of pain and inability to walk on right lower limb since 15 days.
- History of injury due to fall at home while playing 15 days back.
- No history of loss of weight /Anorexia.
- Local examination revealed that mild diffuse swelling around distal end of tibia on right side, along with tenderness.
- No neurovascular deficit.
- Child was afebrile, General examination was normal.
- **Fig 1:** clinical picture of child showing mild diffuse swelling around the distal end of the tibia on right side.



- **Fig 2:** preoperative x ray radiograph of right leg AP/lateral view :showing the lesion in the distal end of right tibia.

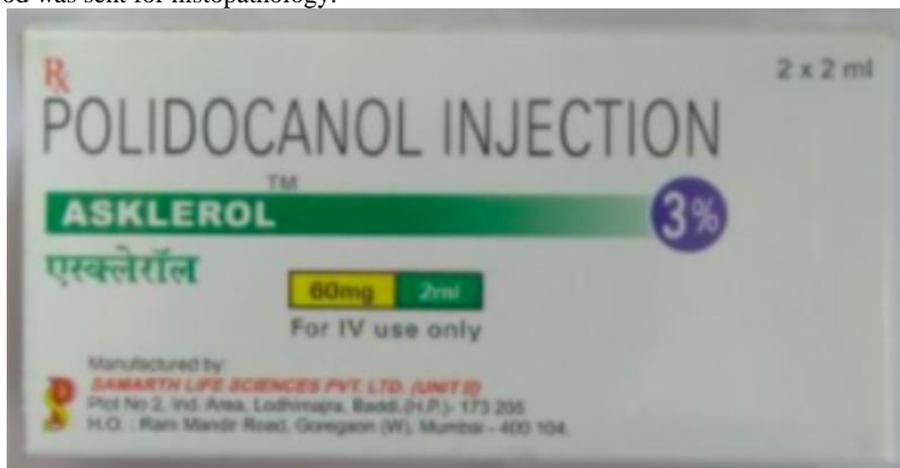


• **Fig 3,4:** intraoperatively lesion was marked under C-arm ,Intra operative Aspiration revealed 40 cc of frank blood confirmed our radiological diagnosis of an ABC.



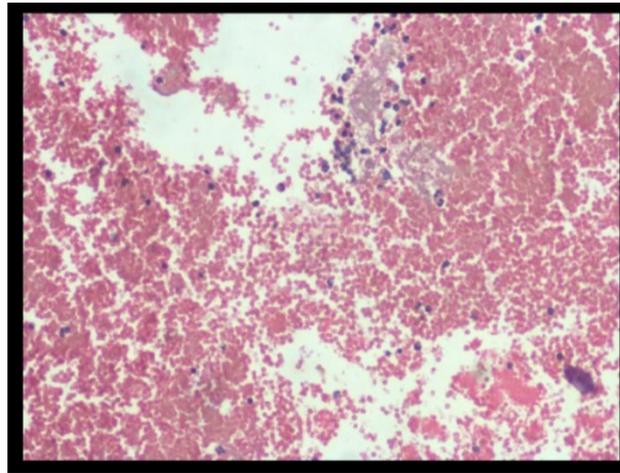
TREATMENT :

- After aspirating entire contents of cyst the loculations were broken with the needle under c arm guidance.
- The lesion was instilled with Polidocanol 4ml i.e. 240 mg. (2ampoules used)(1 ampoule=120mg)
- After instillation the needle entry site was packed with pressure for 10 minutes to aid in clot formation and prevent the drug from leaking.
- Procedure was repeated 2 times 6weeks apart.
- Aspirated blood was sent for histopathology.



HISTOPATHOLOGY :

- **Fig 5:**section studied shows blood and blood cellular elements



RESULTS:

- ABC is very rare in age group of 2 years.
- Optimal treatment of ABC is debatable. Standard treatment would include aggressive open curettage and bone grafting. This has been associated with recurrence rates upto 30% that can be reduced to 15% with use of adjuvants.
- Extensive surgery is associated with significant morbidity and growth disturbances.
- Sclerotherapy for the treatment of ABC is a new treatment modality that has efficacy exceeding 90% with negligible morbidity and minimal scar.

Sclerotherapy treatment needed for long term followup is the disadvantage.

- **Fig 6:** post .op follow up after 24 weeks x ray radiograph of right leg AP /Lateral views showing ,Reduction of size of lesion , Thickened cortices.



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