



Sclerotherapy with Polidocanol for Treatment of Aneurysmal Bone Cyst

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Abstract

Percutaneous Sclerotherapy (1) is a safe alternative to surgery for Aneurysmal Bone Cyst.

We present a follow up case for the same.

Methods: *We retrospective analyzed data from our patient with repeated injection of Polidocanol(2) .Each injection consisted of 2-4 mg polidocanol per kg of body weight.*

Results: *All cysts healed in time.*

Interpretation: *Our results shows percutaneous sclerotherapy with polidocanol has high efficiency in treatment of ABC with a low frequency of side effect.*

Aneurysmal bone cysts (ABC)(3) are rare expansile osteolytic tumour with annual incidence of 0.14 per 10⁵. Sclerosant acts by causing damage to endothelium of vessels and starting a coagulation cascade that results in thrombosis.

Keywords: *1.Sclerotherapy 2.Polidocanol 3.Aneurysmal Bone Cyst.*

Introduction

Aneurysmal bone cysts (ABC) is a rare tumour found in adolescent age group, equally in both males and females (Jaffe & Lichtenstein -1942; Leithnes et al 1999).

ABC is expansile osteolytic tumour with incidence of 0.14/10⁵.

Treatment options for ABC are

1. EMBOLIZE
2. CURETTAGE
3. BONE GRAFT & CEMENTATION
4. SCLEROTHERAPY

Polidocanol is used for varicose vein since 1960.

For ABC, Polidocanol was documently used by Jain et al.

Rastogi et al in 2006, gave case series of 72 patient with 97 % success rate

Varshney et al 2010-Sclerotherapy more effective than surgery.

We present our success with usage of polidocanol as sclerosant in ABC patients in study since 2017 till now.

Patients Selection

Radiologically and Cytologically confirmed ABC patients with proper consent and after explanation of all risks, complications and requirement of future surgery (may be) were taken for treatment.

Patient and relatives were counselled and approval was taken for publication.

Materials and Methods

Since 2017 till 2019, patients were treated and regular follow up was done.

Instruments:18 G needle

2-4 mg Polidocanol/kg body weight

Methods

We used the 18 G needle to draw fluid aspirate, presence of blood in aspirate suggested active disease.

Routinely 3 injection of polidocanol was given at 4 week interval. We needed maximum up to 6 such dosage before we found clinical & radiological improvement in few cases.

Results

After a mean follow up of about an year we could match our success with the earlier research done on similar project.

No patient had any recurrence or any major adverse effect.

Clinical conditioned improved and bone quality improved with gradual decrease in the size of cysts.



Figure 3: First Injection Dose (21/1/18)



Figure 4: Second Injection Dose (25/2/18)



Figure 1: X-ray at first visit to clinic



Figure 5: Third Injection Dose (26/03/18)

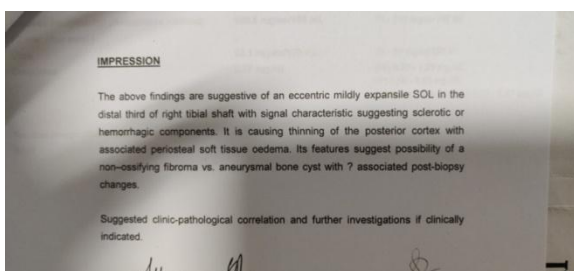


Figure 2: MRI Report



Figure 6: Fourth Injection Dose (26/4/18)



Figure 9: 6 Months after Last Injection



Figure 7: Fifth Injection Dose (02/05/18)



Figure 10: 7 Months After Last Injection



Figure 8: Sixth Injection Dose (01.06.2018)

Discussion

Open curette and bone grafting has 30% recurrence. Wide en bloc excision -100% cures but the morbidity associated was not encouraging. Radiation therapy has also been tried. So the best available treatment was with sclerosant i.e. POLIDOCANOL. However need of multiple injection and prolong treatment appears as a disadvantage of the procedure. In our study we got excellent success with no recurrence till date & no complications like anaphylaxis etc. following the procedure. Hence we promote treatment of polidocanol therapy as sclerosant in ABC.

Acknowledgement

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