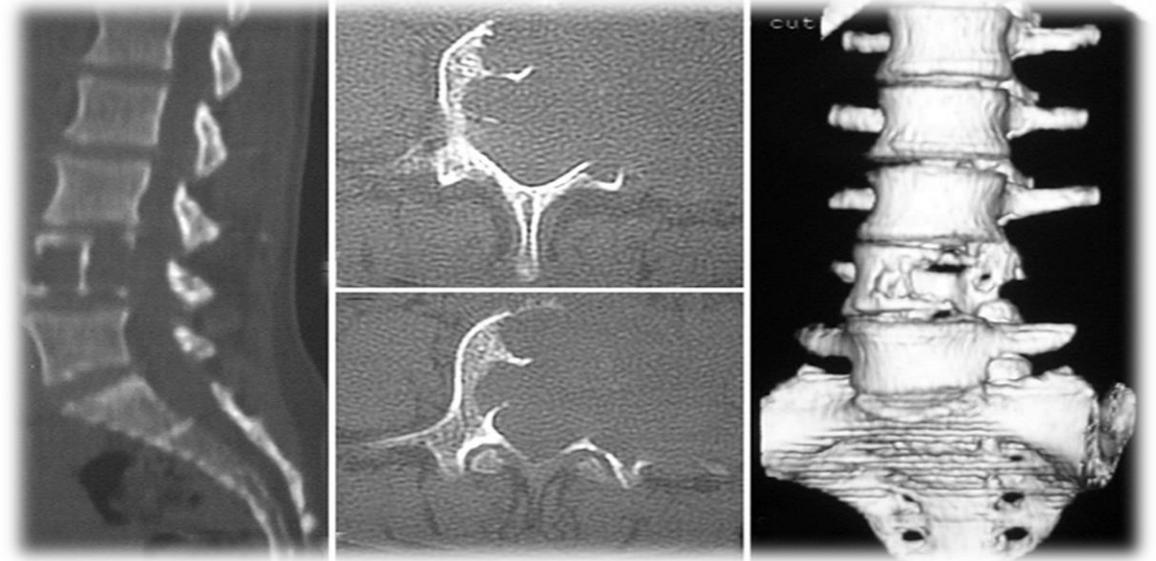




ANALYSIS OF SURGICAL OUTCOME IN ANEURYSMAL BONE CYSTS OF SPINE



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DISCLOSURE

- No financial disclosures
- No conflict of interest

INTRODUCTION

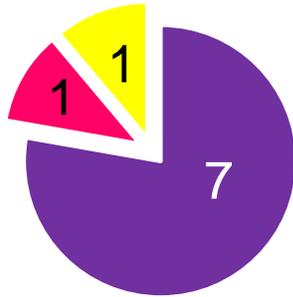
- ❑ Aneurysmal bone cysts (ABC) are expansile lesions of bone characterized by thick or thin walled spaces and separated by fibrous septa.
- ❑ Although benign, these lesions are locally aggressive and are of unknown etiology.
- ❑ Prevalence of ABC is around 1.4 cases per 100,000 individuals and constitutes 1% of all bone tumours and 15% of all spinal tumours
- ❑ Optimal treatment of ABCs of the spine remains controversial.
- ❑ Clinical course of ABCs is sometimes unpredictable and local recurrences have been described with various modalities of treatments

METHODS

- ❑ Nine patients with ABCs of spine, who underwent surgical intervention in our department
- ❑ Type of study: Retrospective
- ❑ Duration of study: January 2014 to December 2018
- ❑ Clinical records, imaging, operative findings, histopathology record and current neurologic status were statistically analysed
- ❑ **AIM:** To assess the outcome of surgery in these patients

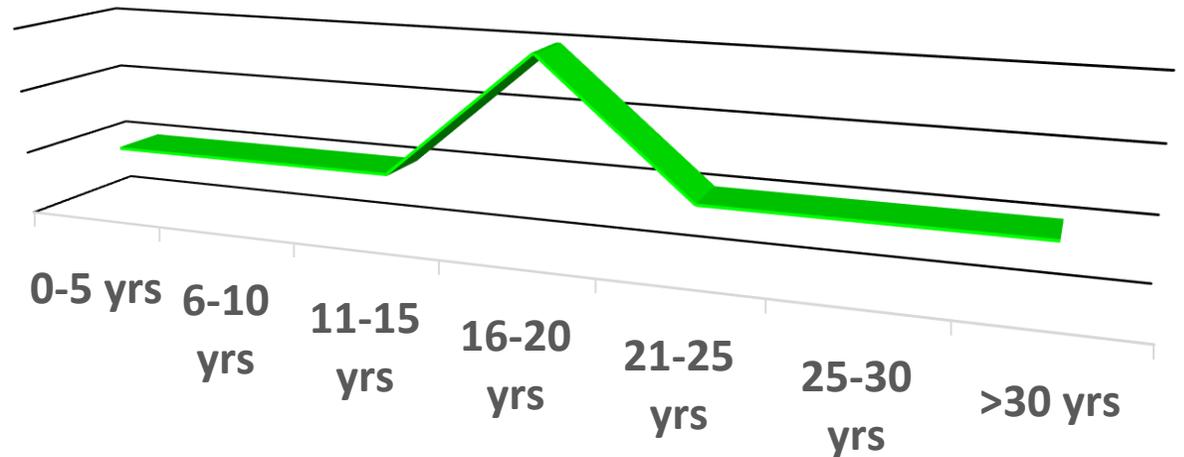
RESULTS

LOCATION OF LESION

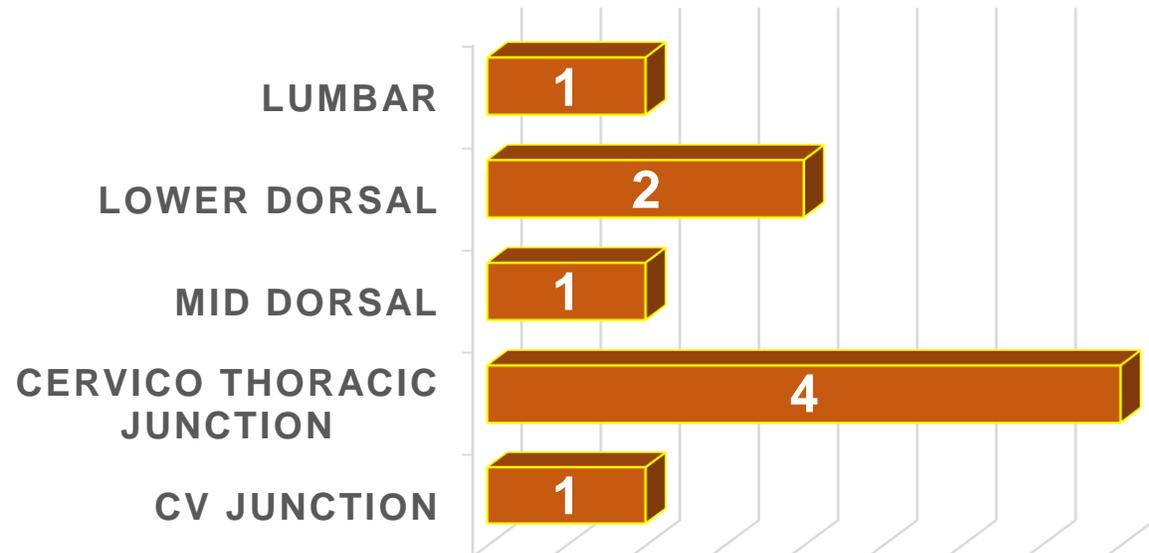


■ MIDLINE ■ RIGHT ■ LEFT

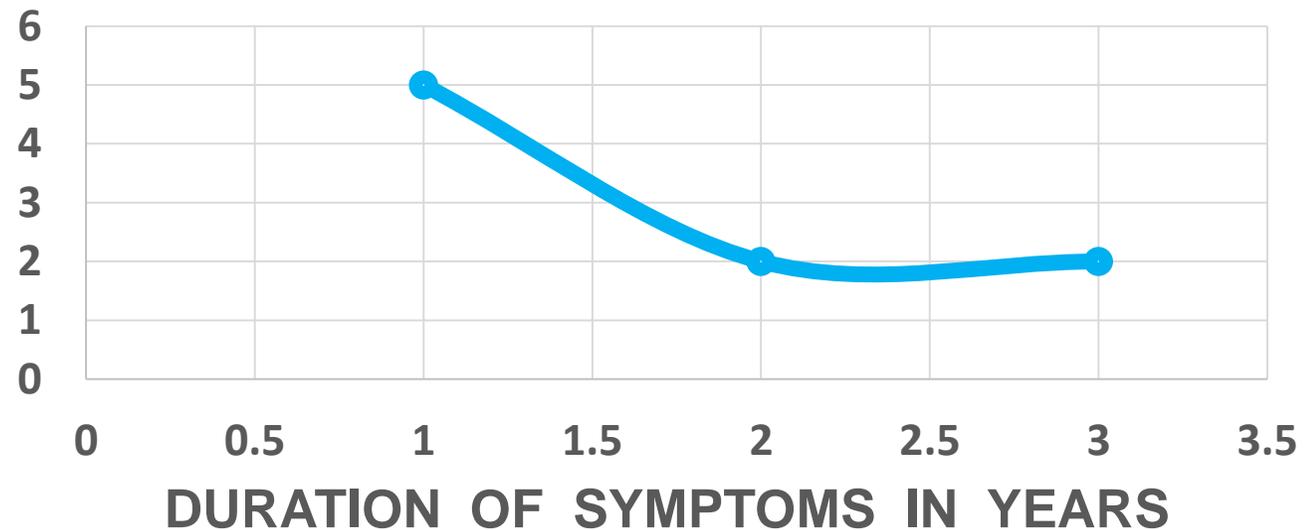
AGE DISTRIBUTION



VERTEBRAL REGIONS INVOLVED



NUMBER OF PATIENTS

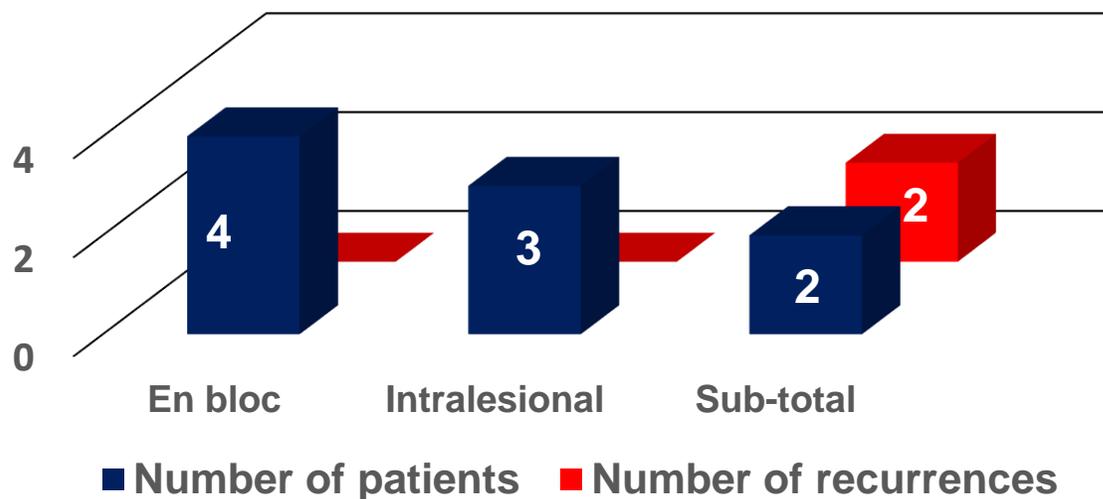


RESULTS

CONSISTENCY



TYPE OF SURGERY AND RECURRENCE



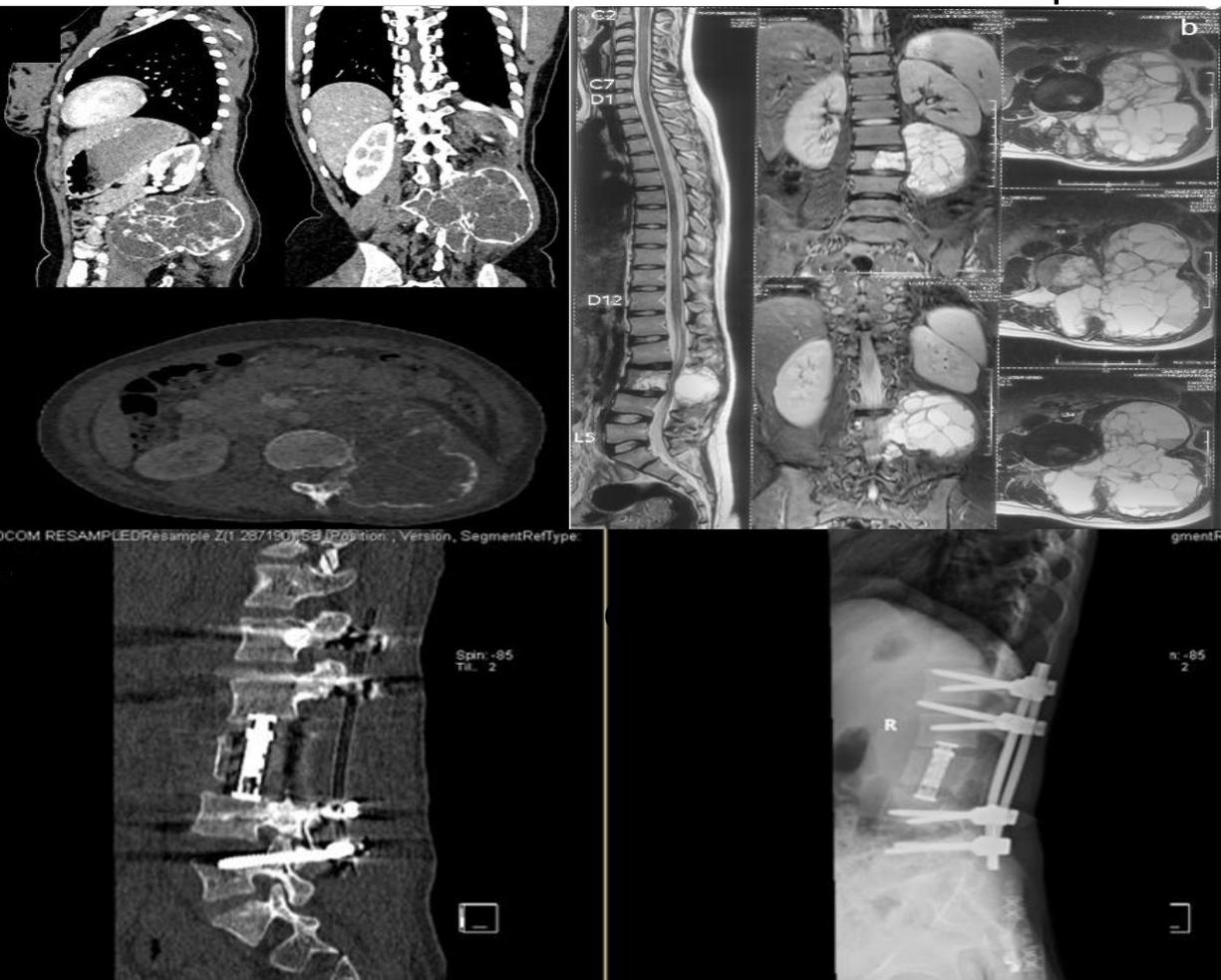
CORD COMPRESSION AND LIMB WEAKNESS



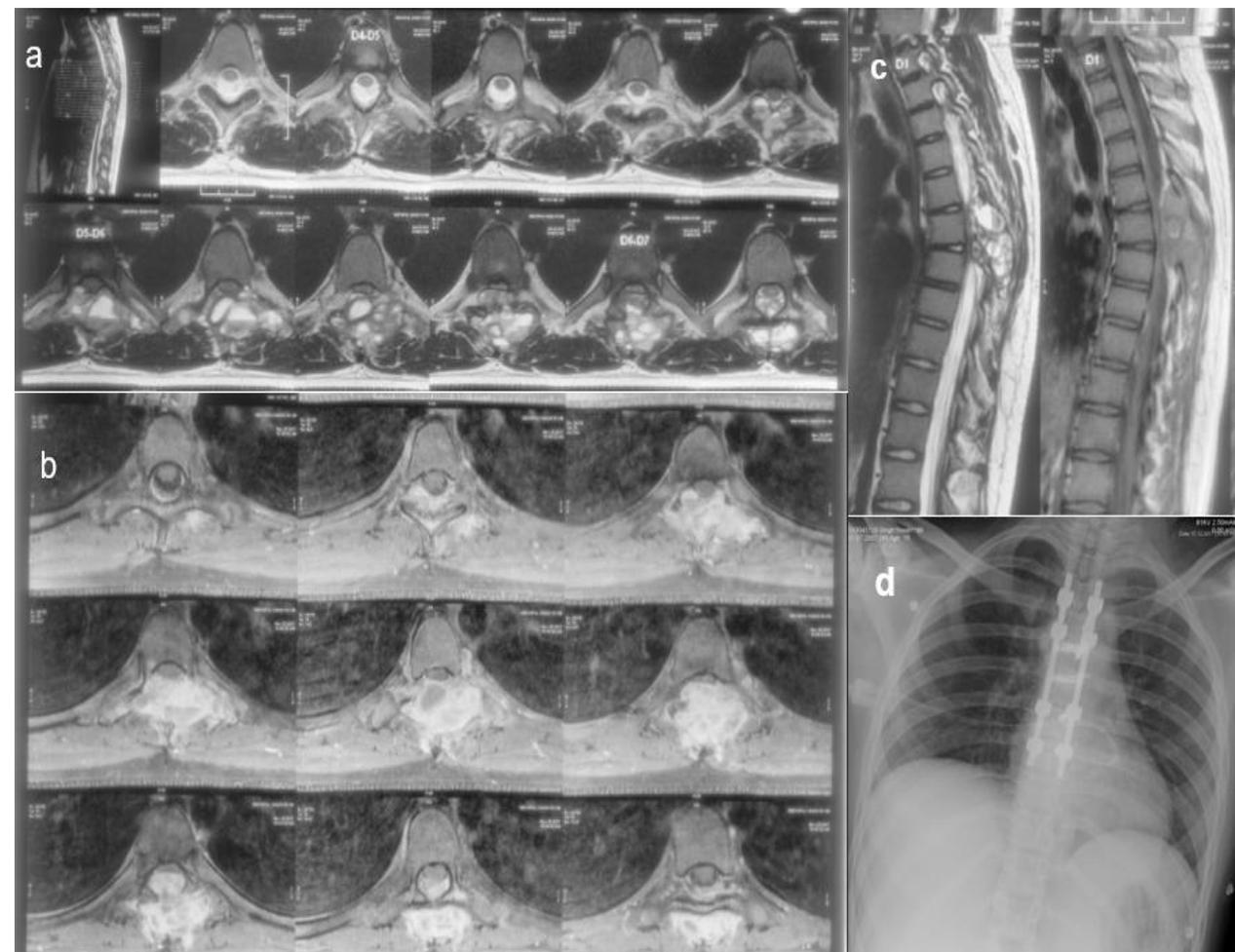
RESULTS

- ❑ All patients were treated with posterior approach except for one patient where both posterior and anterior approach was used
- ❑ Since SINS score of the patients were 9 and above, all underwent instrumentation
- ❑ Mean duration of follow-up was 28 months
- ❑ Recurrence was seen in only 2 patients, who had undergone subtotal excision with adjuvant sclerotherapy
- ❑ Three patients showed improvement in power

Case-5: A 22 yr female presented with radicular pain & lump in left flank for 18 months. There was no neurologic deficit. CT and MRI revealed L3 cystic ABC with large exophytic component in the paravertebral region. SINS score was 10. Underwent GTE of L3 cyst & L1,L2,L4,L5 PSRF with expandable cage placement. No evidence of recurrence at 52 months of follow up.



Case-4: A 15 yr male with 4 month h/o back pain and limb weakness. Power in lower limb was 1/5, with exaggerated reflexes. MRI revealed a solid-cystic lesion arising from the posterior elements of D6 and invading the epidural space. Underwent excision of D6 ABC & D4,5,7,8 PSRF. At 16 months of follow-up his power has improved to 4+/5 and has no evidence of recurrence.



DISCUSSION

- ❑ Although optimal treatment is controversial, complete resection in the form of en-bloc or intralesional technique provides highest degree of cure
- ❑ Spinal stabilization provides optimal local control and prevents or corrects spinal deformity and instability
- ❑ At a mean duration of follow-up of 28 months, none of the patients with complete resection and without any adjuvant radiotherapy had recurrence at a mean duration of follow-up of 28 months
- ❑ Although clinical and routine radiography findings are similar in both classic and solid-cystic variety, MRI can distinguish between the two

SUMMARY

- ❑ Main indications for surgery are rapid progression, despite intracystic injection, leading to neurological threat produced by massive involvement of the vertebra
- ❑ Recurrence after surgery is highest after curettage alone or with adjuvant therapy alone
- ❑ Treatment should include complete excision(enbloc or intralesional technique) and surgical stabilization, with or without adjuvant treatment modalities