ISSN No:-2456-2165

A Case Report of an Aneurysmal Bone Cyst of the Spine

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Abstract:- Aneurysmal bone cysts are a less prevalent,non-malignant bone tumorswith an incidence of less than 1.5% of primary bone tumors. The spine is affected only in 3-30% of cases.

This report describes the clinical features of aneurysmal bone cyst of the spine. We report a case of a rare aneurysmal bone cyst in the spine in 30-year-old patient presenting with a stiff neck.

Keywords:- *Benign, ABC, Cervical spine,MRI, CT.*

I. INTRODUCTION

Aneurysmal bone cyst (ABC) is a non-malignant, more vascular, aggressive locally, osteolytic lesion of unknown aetiology. Lesions usually occur within the 20 years of life and are slightly more common in females. ABC is the 3rd most common benign bone tumor. Primary ABC have incidence of less than 1.5% of primary bone tumors The spine, especially the lumbar(very rare in the cervical reg ion) and posterior elements, are affected in about 3-30% of the cases. Most common complaint patients present with is pain, especially during night time and pain is more where the lesion is. Computed tomography (CT) and magnetic resonance imaging (MRI) are helpful in the diagnosis. Osteolytic cavity are seen on plain x-rays. Fluid levels can be seen on both CT and MRI.

II. METHODS

This observational study is being conducted in the Department of Radiology, Vydehi Institute of Medical Sciences and and Research Center, Bangalore.

A 30-year-old patient visited our hospital complaining of stiffness of the neck muscles since 8 months.

Patient was voluntarily included in the study and patient received no financial support or additional burden.

III. CASE REPORT

30-year-old woman with the history of stiffness in the neck region since 8 months.

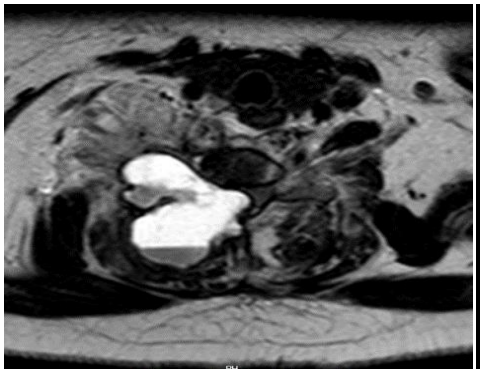

Fig. 1

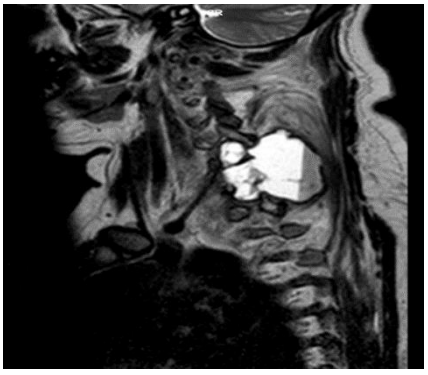

Fig. 2

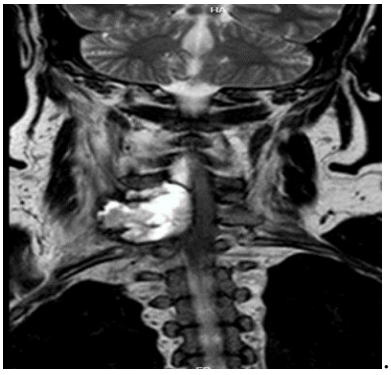

Fig. 3

FIGURE 1, 2, and 3 are showing fairly well-defined, lobulated, expansile, osteolytic lesion noted extending from C5-C7 vertebrae involving predominantly posterior elements and compressing the cervical spinal cord. The lesion shows peripheral T2 hypointense rim and multiple septations between T2W hyperintense haemorrhagic content showing fluid-fluid levels.

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IV. DISCUSSION

The prevalence of ABC is less than 1.5 cases per 100,000 people (approximately 1% of all bone tumors). ABC is a non-malignant, more vascular, aggressive bonetumor with a recurrence rate of less than 50% after curettage.

Spontaneous tumor regression is rare. ABC havepredominance in the lumbar spine in comparison to the cervical and thoracic spine.

X-rays, CT scans, and MRI aids in diagnosis. X-rays shows a lesion which is sharply defined, expansile, with cavities having thinwalls. On MR imaging, ABCs usually show well defined, thin low signal intensity rim and multiple septate lesions.

V. CONCLUSION

In conclusion, this study intends to discuss that early diagnosis is essential for successful treatment. Effective decompression and stabilization of the spine can be achieved with resection (partial/complete) of the tumor. Recurrence rate is very less with complete resection. Complete resection of the tumor allows long-term treatment of this aggressive pathology.

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ETHICAL COMPLIANCE

- **Funding**: No funding required for the study.

- **Conflict of interest:** There was no conflict of interest while conducting this study.

- **Ethical approval (animals):** Authors did not perform any study on the animals.

- **Ethical approval:** All procedures conducted in the study involving human participants were in accordance with the ethical standards of the institutional and / or national research committee and the Helsinki Declaration of 1964 and its latest amendments or similar codes of conduct.

- **Informed consent:** Informed consent was taken from the participant included in this study.

- **Contributions from authors:**
  - DR. SHUBHAM GUPTA (SG)
  - DR. SOHAM SHRIVASTAVA (SS)
  - DR. RITHESH A R (RA)
  - DR.SURESH A (SA)

Major contributions to the design of the work; or the acquisition, analysis, or interpretation of work data – (**SG, SS, RA,SA**)
Writing work or reviewing it in depth with important intelligent content- (**SS, SG, RA, SA**)
Final version to be published was approved by- (**SG, SS, RA, SA**)
Accountability agreement on all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are investigated and resolved appropriately- (**SS, SG, RA, SA**)

Dear Editor,
I, **Dr.SOHAM SHRIVASTAVA** (corresponding author), is submitting this manuscript titled "**A case report ofan Aneurysmal bone cyst of the spine**" in your reputable journal for publication.
There were no conflicts of interest and no financial support.
Acknowledgments- None

Thanking you,