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PRESACRAL EPIDERMOID – A RARE ENTITY

General Surgery

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ABSTRACT

Management of a rare case of presacral epidermoid cyst noted as an incidental finding on antenatal ultrasonography is detailed in this article.

KEYWORDS

Presacral Epidermoid, Diffusion Weighted Imaging,hypointense,hyperintense

INTRODUCTION:

An epidermoid cyst is an infrequent entity among pathologies found in presacral region.Cystic pathologies in presacral area include Dermoid,Enteric cyst,Epidermoid cyst and malignant pathologies viz teratoma and yolk sac tumour etc. Epidermoid cyst can be seen throughout the body, but are rare in presacral and retrorectal regions.

Presacral epidermoid is a rare congenital lesion of ectodermal origin with an incidence of around 1:40000.[1]Presacral epidermoid cyst develops from ectodermal tissue remnants misplaced during embryogenesis due to faulty development of adjacent structures.

In this report we present a case of presacral epidermoid cyst in a young female noted as an incidental finding antenatally.

Case Presentation:

A 24 year old female presented to outdoor department with incidental finding of a cystic lesion noted during antenatal ultrasonography.She presented after six months of normal vaginal delivery.It was neither associated with bowel and bladder abnormalities nor with any gynaecological complaints.

MRI pelvis of the patient and showed well defined cystic lesion in left pelvic region,presacral in location measuring about 5.4*3.3*3.7cm with thin regular uniform capsule and incomplete partial septations.

On T2 Weighted Imaging the components appear isohypointense in nature with signs of layering.On Intravenous gadolinium administration lesion showed enhancement at periphery.On Diffusion Weighted Imaging lesion showed intracystic hyper intensity.

The patient was taken up for excision of lesion under General Anaesthesia with lower midline incision after informed consent.

A 4.5*3*1cm cystic lesion in presacral area in close proximity to rectum and adherant to posterior rectal wall was excised through surgery.

Gross examination revealed globular grey white,grey brown soft tissue piece measuring 4.5*3*1.2cm with cut section showing inner cystic surface and loculations with whitish fluid.

H&E stained sections revealed stratified squamous epithelium containing keratinous material, beneath which sub epithelial tissue showed mild inflammatory infiltrate composed of lymphocytes and thin walled blood vessels suggestive of epidermoid cyst.

DISCUSSION:

Epidermoid cysts can be found throughout the body,but its rare in retrorectal or presacral regions.

The exact incidence of presacral epidermoid cyst is obscure,but as per the records available its estimated to be around 1:40000.[1]

Developmental cystic lesions in presacral location include dermoid, epidermoid, chordomas,cystic hamartomas, anterior sacral meningocoeles , tailgut or rectal duplication cysts.[2]

Presacral epidermoid cysts are generally found in females of reproductive age group as incidental finding during gynaecologic or obstetric related imaging.[3]

Because of their unusual location and slow growth they remain asymptomatic, symptoms like pain in presacral lesions have been associated with secondary infection or malignant degeneration .[4,5]

These cysts are difficult to characterise by Ultrasonography/Computed Tomography, consequently the pre operative definitive diagnosis is difficult.To solve this diagnostic ambiguity Magnetic Resonance Imaging with diffusion weighted imaging is recommended. Epidermoid cysts appear as T1 hypointense T2 hyper intense masses that show diffusion restriction.

T2 hypointense foci may be seen within the lesion because of keratin presence.[3]

The nearest differential diagnosis of epidermoid cyst on basis of diffusion restriction is retrorectal pyogenic abscess.but the clinical history of systemic illness or high grade fever often preceeds pyogenic abscess. On imaging abscess is usually ill defined or loculated with heterogenous signals and presesnce of thickened enhancing rim ,intracavitary fluid debris or air specks.Surrounding fat may be infiltrated.On DWI there may be heterogenous diffusion restriction in an abscess which is usually central.[6]

Presacral epidermoid is a rare entity and the use of diffusion restriction to characterise them is essential for pre operative planning.

These lesions are to be surgically excised because of the risk of secondary infection or malignancy. Apt diagnosis and proper treatment for a presacral lesion is significant as inadequate primary surgery can lead to increased morbidity and risk of recurrence and complications like faecal incontinence.[7]

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