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Case Report

Surgery Section

Giant Epidermoid Inclusion Cyst in the Ischiorectal Fossa: A Case Report

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ABSTRACT

Epidermoid inclusion cysts though common in occurrence are uncommon in the perineal region, more so in the ischiorectal fossa. In this region clinically it may mimic lipoma / neurofibroma, or tail giant cysts. They may rarely be malignant. This case report is being presented as it is an uncommon site of presentation and also unusually large in size.

Key Words: Giant epidermoid cyst, Ischiorectal fossa

INTRODUCTION

Epidermal cysts are those that occur as a result of implantation of epidermal elements in the dermis [1].

The common sites of presentation in descending order of frequency are the face, trunk, neck, extremities and the scalp. Genital cysts are less common and usually appear as a mass in vulva/clitoris/penis/scrotum/perineum.

Differential diagnosis include lipoma and neurofibroma. It is twice as common in men as compared to women. History of trauma or mechanical pressure may be a contributing factor. Epidermoid cyst in the perineum can involve a scrotum/penis. Large cysts can displace anus, vagina and may extend into pelvic space adjacent to the rectum [2].

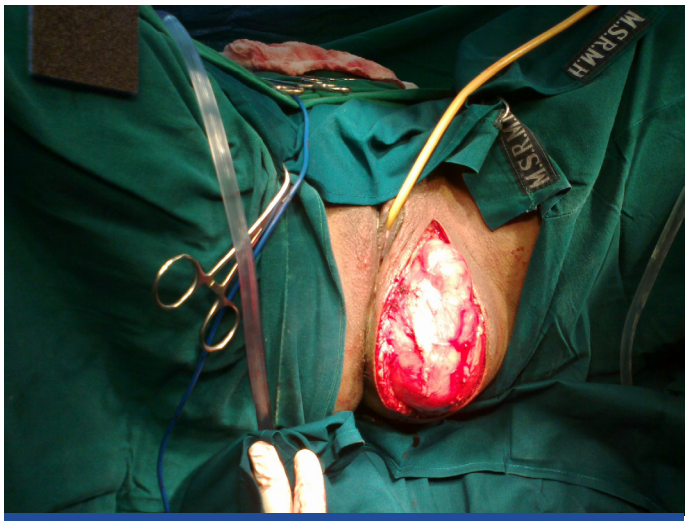
These cysts may get inflammed, infected and associated with foul smelling, cheese like discharge. Very rarely they may undergo malignant change which will result in rapid growth and friability and or bleeding [3].

Work Up: Includes FNAC/USG/CT/MRI: CT /MRI required to delineate the extent of the mass and plan for surgical excision. In our case we did a CTScan and a FNAC.

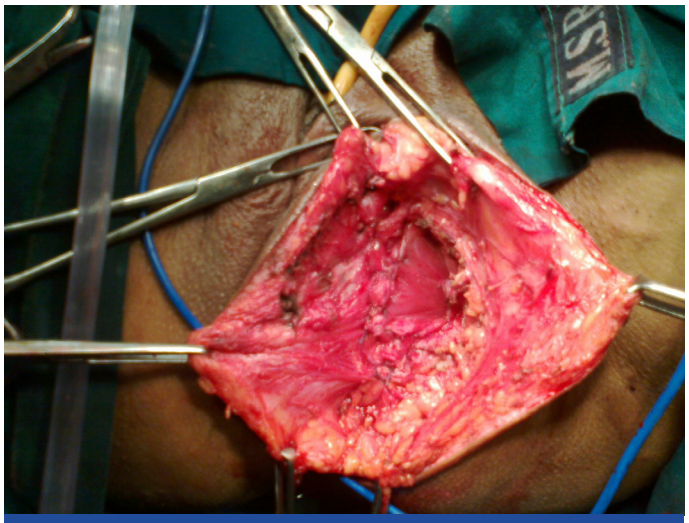
Treatment: Careful and meticulous dissection is required to avoid injury to vital structures nearby such as the anal canal, urethra. This would also avoid spillage of contents which would otherwise lead to wound infection.

CASE REPORT

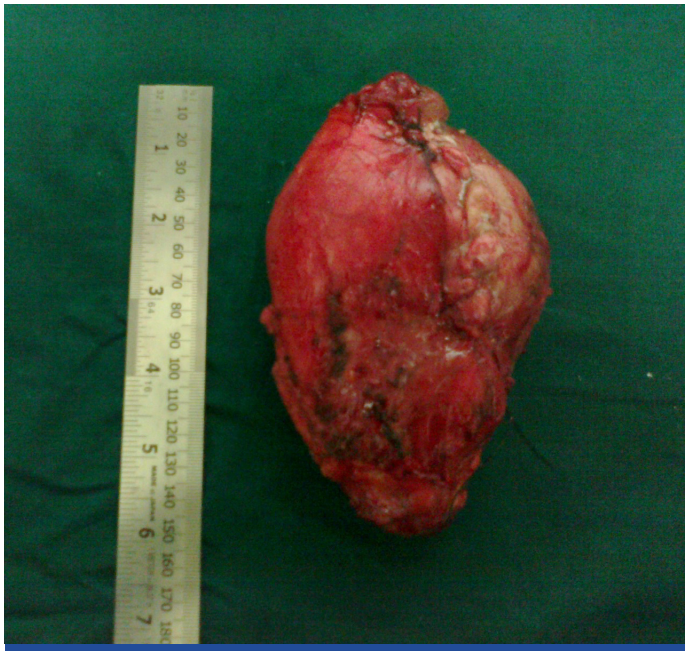
A 36-year old female patient came with complaints of a swelling in the left perianal region since two years which was gradually progressing in size. She had pain over the region on sitting down and hence had to always sit on only one buttock. The swelling was not associated with fever. On examination there was a non-tender swelling around 10x 6cms in the left perianal region oval in shape and soft to cystic in consistency. Due to the large size of the swelling there was a prominent bulging of the perineum as compared to the opposite side. On per rectal examination there was no bulge felt nor was it bulging into the vagina on pervaginal examination. A diagnosis of lipoma was made on clinical examination. A FNAC was done to confirm the diagnosis. FNAC showed sheets of anucleate squames with few mature squamous epithelial cells on a dirty background. There



[Table/Fig-1]: Intra-operative 1



[Table/Fig-2]: Intra-operative 2



[Table/Fig-3]: Epidemoid cyst

was no evidence of malignancy The features were suggestive of Epidermoid cyst.

CT pelvis was done to know the exact extent of the cyst and to plan for the surgical excision.

A CT scan showed a well defined cystic mass lesion in the left ischiorectal fossa with fatty component suggestive of epidermoid cyst. It was approximately 15x10 cms. It was abutting against the levator ani and elevating it. Surgical excision was planned. A lazy "S" incision was made over the swelling such that the lower end of the incision was away from the external anal sphincter fibres. The anal canal and rectum were free from the mass The giant epidermoid cyst of 15cmsx10cms was excised in toto. The cyst was adherent to the levator ani and hence a part of the levator ani was excised. The defect in the levator ani was closed and a drain was kept in situ. The post-operative period was uneventful and patient recovered well. Histopathology confirmed the diagnosis of an Epidermoid inclusion cyst.

DISCUSSION

Epidermoid cysts are benign slow growing lesions which arise due to implantation of epidermis into the dermal layer of skin. These occur due to proliferation of epidermal cells within the dermis. They are usually asymptomatic and come to notice either due to large size or when they get infected. They are twice as common in men as compared to women and commonly present in the third or fourth decade of life.

- The aetiology may be due to inflammation, trauma to skin ,uv exposure and HPV infection.
- Various theories have been proposed such as:
    1. Aberrant embryogenesis theory where there is misplacement of ectodermal cells during cellular differentiation.
    2. Transplantation of epidermal cells into dermis following trauma
    3. Inflammation of pilosebaceous structures leading to cystic reaction in the dermis
    4. Infection of eccrine ducts by HPV 60
    5. They may also present as a part of the Gardner's syndrome [4, 5]. It is an autosomal disorder associated with intestinal neoplasms, osteomas, epidermal cysts and thyroid nodules.

There have been reports of malignant transformation in these cysts usually into squamous or basal cell carcinoma.

Our patient had undergone an episiotomy during her vaginal delivery two years prior. The episiotomy wound could have been the contributory factor for the formation of the cyst. Clinically a diagnosis of lipoma was made but it was ruled out on CT scan by the cystic nature of the lesion. Other differential diagnosis include neurofibroma, or tail gut cysts which is a developmental lesion lined by gastrointestinal epithelium.

Due to concern about possibility of malignancy CT/MRI has to be done especially when they present at unusual sites or are large at the time of presentation. These investigations also help us to deleniate the tumour, to know its extension into adjacent organs are known to adhere to adjacent organs due to repeated inflammatory process. The MRI shows these masses as well defined lesions with mild to moderate signal intensity on T1 weighted images and severe intensity on t2 weighted images.

Histopathology confirms the diagnosis and shows stratified columnar epithelium with a granular layer. This granular layer helps to differentiate from sebaceous cysts.

Though epidermal cysts are commonly seen in the face and scalp it can present at unusual sites such as pararectal, intracranial, breast etc.

Surgery is the treatment of choice. Meticulous care should be taken to avoid spillage of contents, excision of cysts in toto is recommended to prevent recurrence. Care should be taken to prevent injury to adjacent structures such as urethra and anal canal.

The incidence of epidermoid cysts in the pelvis is very rare with fewer than ten case reports in literature.This case is being presented for its unusual site of presentation, the very large size of the cyst 15×10cms and the excision of cyst in toto through the perineal approach. The largest reported so far in literature is 17.8×13.18cms [6] probably this is the second largest cyst being reported.

CONCLUSION

Our aim in presenting this case is that such cysts may attain large size before being symptomatic.They may become adherent to surrounding structures due to low grade or recurrent inflammatory process Careful pre-operative evaluation and meticulous dissection is required to avoid injury to adjacent structures such as the bladder, urethra, and rectum and anal canal.

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