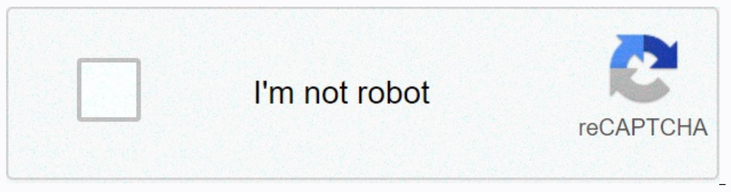

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Canaliform median raphe cyst

The diagnosis of median raphe cysts can be made with confidence through history, physical examination and histological evaluation. What you should be alert to in history are Patients usually presenting with one or more asymptomatic nodules on the ventral side of the penis. They may complain of tenderness, pain, and/or purulent discharge if there is associated infection, usually with Staphylococcus aureus or Neisseria gonnorrhoeae, or due to trauma. In addition, if located near the urethral meatus, some patients may complain of obstructive urinary symptoms. Some reports describe sexual interference, depending on the location and size of the cyst. Characteristic findings on physical examination Median raphe cysts appear as skin-colored to translucent cystic papules, nodules or cords in the midline from the urethral meatus to the anus. The distal penis is the most common location reported. They are usually a few millimeters in diameter, but can be up to several inches long in the canaliform variant. Median raphe cysts are often quite mobile and not tender to palpation. Expected results of diagnostic studies Histologically, median raphe cysts reveal a single cystic space located in the dermis lined by one of two types of epithelium: layered squamous epithelium or pseudostratified columnar epithelium (Figure 2), the latter being the most common. The majority of cysts have only one type of epithelium, while some areas of both may have. Some may show decapitation secretion resembling apocrine differentiation. Rarely has a ciliated lining been reported. They don't communicate with the urethra. Skin-colored papule in the midline on the ventral surface of the penis. Median raphe cyst: small cystic space lined by a pseudostratified zuilar epithelium. It spots epithelium for Cytokeratin 7 (CK7) and carcinoma bronic antigen (CEA) and often with Cytokeratin 13, but it does not stain for S-100, Cytokeratin 20, or human milk fat globulin 1 (HMFG1), the latter helping to distinguish median raphes from an apocrine cystadenoma. Diagnosis confirmation The clinical differential diagnosis includes steatocystoma, mollusc condom, pilonidal cyst, dermoid cyst, epidermoid cyst and urethral diverticulum. These entities can be easily distinguished on histological grounds. Urethral diverticuli can be diagnosed using voiding and retrograde cystourethrography. Who is at risk of developing this disease? Median raphe cysts occur only in men. Although they are congenital, they are usually discovered for the first time in adolescent boys and some may not come to medical attention until adulthood, when they increase or become symptomatic. What is the of the disease? Etiologie Pathophysiology Median raphe cysts are believed to stem from an abnormality in the formation of the urethra in which embryonic nests persist during invagination invagination closure of the genitourinary folds. Another theory she likes to be able to form ectopic Littre's (periurethral) glands. Systemic implications and complications There are no reported systemic implications associated with median raphe cysts. However, they can become infected with S aureus or N gonnorrhea causing swelling, pain and purulent discharge. Treatment Options Expectant Management – As small and asymptomatic medical therapy – Systemic antibiotics cover S. aureus and/or N. gonnorrhoeae if clinically infected surgical therapy – Surgical excision with primary closure as symptomatic or of cosmetic care. Optimal therapeutic approach for this disease When treatment is needed, surgical excision followed by primary closure is the treatment of choice. This procedure can be performed under local, spinal or general anesthesia, depending on the patient and the size of the lesion. If clinical infection is present, excision should be delayed until after successful treatment of the infection. Patient management If expected management is chosen, the patient and/or family should be informed that the cyst may slowly increase and, rarely, quickly over time, it may become infected and surgical excision may occur any time in the future. The recurrence rate after surgical excision is extremely low. Unusual clinical scenarios to consider in patient management Rarely, median raphe cyst will present as a rapidly growing lump, sometimes after intercourse. What's the evidence? James, WD, Berger, TG, Elston, DM. Andrews' skin diseases. 2006. pp. 682 (Excellent assessment of the most striking features of median raphe cysts, including clinical presentation, histological findings, and treatment.) 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CASE REPORT Year : 2020 | Volume : 11 | Number : 2 | Page : 216-218 Parameatal median raphe cyst: A case report of a midline developmental defect of real genitourinary origin Aseem Sharma, Sandip Agrawal, Tejas Vishwanath, Smita Ghate, Rachita Dhurat, Kiran Chahal Department of Dermatology, Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai, Maharashtra, India Date of Web Publication9-Mar-2020 Correspondence Address: Aseem SharmaOPD 16, Department of Dermatology, LTM General Hospital, Sion, Mumbai - 400 022, Maharashtra IndiaSource:None, Conflict of Interest: NoneCheckDOI: 10.4103/idoj. IDOJ_122_19 Median raphe cyst (MRC) is an unusual, asymptomatic benign lesion, which can be present anywhere on the midline comb between the external urethral meatus and the anus. Although they are developmental in origin, they often present themselves in the aggravated by trauma, and are often infected in the second place. MRCs are often misdiagnosed as epidermal cysts, steatocystoom plywood, and eccrine cystadenomas. They and fewer than ten case reports consist of the Indian subcontinent. We report here, a man with an immunohistochemically proven parameatal MRC. Key words: Immunohistochemistry, median raphe cyst, steatocy steam plywood, transitional epithelium, genitourinary epithelium How to quote this article: Sharma A, Agrawal S, Vishwanath T, Ghate S, Dhurat R, Chahal K. Parametal mediane raphe cyst: A case report of a midline developmental defect of real genitourinary origin. Indian Dermatol Online J 2020;11:216-8 How to quote this URL:Sharma A, Agrawal S, Vishwanath T, Ghate S, Dhurat R, Chahal K. Parametal mediane raphe cyst: A case report of a midline developmental defect of true genitourinary origin. Indian Dermatol Online J [series online] 2020 [cited 2020 December 18];11:216-8. Available at: Historically, the median raphe was a Biblical euphemism for a developmental scar on the mammal 'Baculum' or ox penis. By definition, each cavity coated by genitourinary epithelium, presenting on this raphe is called as a median raphe cyst (MRC). MRC is an unusual, asymptomatic benign lesion. When present near the external urethral meatus, it is referred to as 'parametal'. [1] Parameatal cysts often exhibit a layered squamous epithelium. Morphological types described in literature include classical, nodular, canalicular, linear, pigmented and multicystic types. Amaranathan et al., in their study have concluded that there are only ten case reports of penis localization from India and fewer than 200 worldwide. [2] Histopathological types of MRCs include urethral, epidermoid, gland, mucoid, gemlanized, and mixed types. [3] This patient presented to our outpatient department with an asymptomatic, parametal median raphe cyst, with mixed epithelial lining on Tzanck cytology and histopathology, and classical immunostaining for cytokeratin 7 (CK7) and cytokeratin 13 (CK13). A 33-year-old unmarried male patient, presented to the dermatology outpatient department, with a single, asymptomatic, skin-colored swelling present on the gloss penis, of 5 years duration. He had no history of trauma, application of local medication, or high-risk sexual behavior. Clinical research showed a solitary 7 × 5 mm, flesh colored, nontender, smooth swelling, proximal to the meatus, over the ventral penis surface [Figure 1]. The lesion was not compressible and showed no transillumination. Aspiration with a 20 G needle was done and a Tzanck smear was made, from the viscous, non-fragrant suction. Tzanck smear showed multiple flat epithelial cells similar to those of transitionaleptheel and squamous celleptheel [Figure 2]. The suction turned out to be sterile at Research. Figure 1: A flesh-colored swelling, 7 × 5 mm in size, on ventral aspect of parameatal glossClick here to view Figure 2: Tzanck smear shows flat, flat, cells similar to those of squamous epithelialClick seen hereLocal high frequency sonography showed a well-defined, hypoechoic lesion measuring 6 × 5 × 3 mm, spread over the epidermis and dermis of shine, with no other cystic or solid lesion in any part of the penis. A narrow punch biopsy was performed, and the section showed three different layers, the outer being normal layered squamous epithelium. Among them, fibrocollagenous stroma was appreciated [Figure 3]. The cyst showed variable lining i.e. stratified squamous and transitional epithelium. No adnexal structures or atypical cells were detected in the cyst wall [Figure 4]. At immunohistochemistry, the cells were positive for cytokeratin 7 and cytokeratin 20 and negative for human milk fat globulin. On clinicopathological correlation, a definitive diagnosis of MRC of mixed epithelial type was made. Complete surgical excision was performed under local, infiltrating anesthesia. Figure 3: Three layers, outer are layered squamous epithelium. Fibrocollagenous connective tissue can be seen between epidermis and cystepepelium. (H and E, 10 ×) Click here to view Figure 4: Cyst lining with column cells at the base, flattening as they move upwards - transitional eptheel. (H and E, 40 ×) Click here to viewMRC is an unusual, benign midline lesion located along the raphe somewhere between the external urethral meatus and the anus. They are synonymous with mucus cyst of the penis shaft and genitoperineal cysts of the medium raphe. [1] Most cases are asymptomatic during childhood and become symptomatic during adolescence or adulthood. Patients may, rarely, be present with pain (due to infection or trauma), dysuria, hematuria, hematospermia and dyspareunia. [3] Generally presenting as solitary cysts, the rare variants of MRC include canaliform, cord-like, and multicystic indurations on the median raphe. [4] Differential diagnoses are steatocystomen, epidermal or dermoid cysts, glomus tumor, pilonidal cyst, urethral diverticulum, eccrine cystadenomas, and steatocystomas[5] which can be distinguished by histology and, where indicated, immunohistochemistry. [6] There are several pathogenetic hypotheses regarding the evolution of MRC. The first theory is 'tissue capture' during embryonic fusion of urethral folds for the development of urethral groove. [1],[5],[7] Another theory is that DCS could be caused by the abnormal development of the periurethral glands of Littre[8] and by abnormal stagnation of the paraurethral canal. [9] Median raphe cysts show a number of characteristic morphological hands, such as:The most common presentation is a spherical, nodular swellingThe most site is about the median rapheIt can be median or paramedian in positionIt is a translucent swelling and transillumination test is usually positiveOn needling, the lesion radiates a viscid liquid. They also have classical histopathological findings. They are derived from genitourinary epithelium, 'transition' from column to squamous epithelium - the epithelium flattens to absorb the stretch that is lifted by the enclosed mucous membrane. Shao et al.[3] have described different histopathological types. They are[1] pesedonized zuthelium (if proximal urethral cells are caught),[2] squamous celleptheel (if distal ureral cells are caught),[3] glandularepeel (if periurethral glands are caught), and[4] the mixed type. Geciiliated epithelium is rarely noticed and considered a metaplastic change that is secondary to local irritation or trauma. Our case is a mixed type of MRC, showcasing the triple histological epithelial lining, as described above. In the case reported by Persec et al.,[10] immunohistological typing of epithelial cells showed positivity for CK7, CK13 and negativity for HMFG-1. Our business has CK7 and CK13 positivity and was negative for CK10 and HMFG-1. The authors have immunohistochemical findings of MRC, pitted against epidermal cysts and steatocy steam plywood, the narrow differences [Table 1]. In most cases, clinicopathological correlation is sufficient to arrive at a diagnosis. Our case had an atypical parametal distribution, which is why immunohistochemical confirmation was done. Table 1: Immunohistochemical markers of median raphe cysts, pitted against its narrow clinicopathological differences - epidermal cysts and steatocystoome plywoodClick here to viewFul local excision of the cyst, including the wall, is the preferred treatment of choice. Simple needle aspiration leads to recurrence of the cyst. Marsupials or depriving are performed in deep-lying large cysts, or multicystic lesions, which can result in gaping sinuses and cord-like tracts, which are cosmetically unsatisfactory and therefore should be avoided. Other surgical complications include the formation of a urethrocutaneous fistula. [3],[9]Median raphe cyst is a rare entity, rarely reported from the Indian subcontinent, and is often unrecognized. MRCs are an unusual type of disembryoplasion that can occur at any location of the median raphe, from the balanic meatus to the edges. These cysts are generally asymptomatic and their treatment of choice is surgical extirpation. A diagnosis of MRC should be maintained as a possibility when a patient presents themselves with a cystic or nodular lesion on the genitals, which must then be confirmed by histopathology and immunohistochemistry, where necessary. Statement of consent of the patientThe authors state that they have obtained all appropriate consent forms for patients. In the form that the patient(s) has/has his/her consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and that will be made to hide their identity, but anonymity cannot be guaranteed. Financial support and sponsorshipNil.Conflicts of interest There are no conflicts of interest. 1.Otsuka T, Ueda Y, Terauchi M, Kinoshita Y. Median raphe (parameatal) cysts of the penis. J Urol 1998;159:1918-20. 2.Amaranathan A, Sinhasan SP, Dasiah SD. 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