Evaluation of vulval masses

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A R T I C L E   I N F O

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A B S T R A C T

In last few decades number of vulval lesions are increased. Patients came with complaints of itching, burning, or swelling. Although benign vulval masses are an uncommon condition of the lower genital tract, it is important to consider these tumors in the differential diagnosis of vulval complaints. Very few studies are done for benign vulval masses.

Aim: To study various vulval masses and their prevalence in patients operated in tertiary care center.

Materials and Methods: We conducted 5 years retrospective observational study of benign vulval masses in our hospital. Total 50 cases were operated which were included in the study. Data collection was done from the Indoor patient department & Operation Theatre Register.

Results: In this study maximum cases were from age group 21-40 years. Bartholin cyst was most common pathology followed by Inclusion cyst & Gartner’s cyst. Rare cases of vaginal mass like Neurofibroma of vulva, Angiofibroma of vulva, Fibroepithelial polyp of labia & Bowen’s disease were also seen.

Conclusion: This study helps us to get an insight of various benign vulval masses and there prevalence.

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1. Introduction

Recently number of patients complaining of vulval lesions are increased. Although benign vulval mass are an uncommon condition of the lower genital tract, it is important to consider these tumors in the differential diagnosis of vulval complaints. These disorders include vulval atrophy, benign tumors, hamartomas, and cysts, infections disorders, and nonneoplastic epithelial disorders.1 Benign tumors of the vulva are relatively uncommon and may show nonspecific findings and therefore a biopsy in often needed to exclude malignancy. Many benign vulval tumors are asymptomatic and are found only on self-examination. Smooth muscle tumors are rare in vulva. In this study we will discuss cases presenting with different types of vulval mass with different clinical features. This study will include cases which were operated in our tertiary care center. We aim to create awareness regarding the vulval diseases and its need for early diagnosis and treatment. 2

2. Objectives

1. To study prevalence of benign vulval masses in patients operated in tertiary care center.
2. To study various vulval masses.
3. To create awareness in the society.

3. Materials and Methods

We conducted 5 years retrospective observational study of benign vulval masses in our hospital. Total 50 cases were operated which was included in the study.
Data collection was done from the Indoor patient department & Operation Theatre Register. And was analysed statistically.

3.1. Place
This study was carried out in the Department of Obstetrics and Gynecology, Smt Kashibai Navale Medical College & General Hospital, Narhe, Pune.

3.2. Time period
January 2016 to December 2020

3.3. Inclusion criteria
All vulval masses operated during study period.

3.4. Exclusion criteria
1. Cases of vulvovaginitis.
2. Cases of trauma at vulva causing hematoma

3.5. Drawbacks of this study
Follow up of cases is not taken so recurrence of disease is not known.

1. Approved by Ethical Committee

4. Results

Table 1: Number of cases

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Cases</th>
<th>(Total - 50)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>12</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>2017</td>
<td>10</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2018</td>
<td>11</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>2019</td>
<td>10</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2020</td>
<td>7</td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>

Graph 1: Year wise Distribution of cases

In 5 years of study period total 50 surgeries were perform in our tertiary care center for benign vulval masses. Out

Table 2: Age group wise distribution of cases

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>No. of cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 20</td>
<td>02</td>
<td>04</td>
</tr>
<tr>
<td>21 – 30</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>31 – 40</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>41 – 50</td>
<td>07</td>
<td>14</td>
</tr>
<tr>
<td>51 – 60</td>
<td>03</td>
<td>06</td>
</tr>
<tr>
<td>≥ 61</td>
<td>02</td>
<td>04</td>
</tr>
</tbody>
</table>

Graph 2: Pie chart of age distribution

Table 3: Vulval masses distribution

<table>
<thead>
<tr>
<th>Vulval masses</th>
<th>No of cases</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartholin Cyst</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>Vulval abscess</td>
<td>02</td>
<td>04</td>
</tr>
<tr>
<td>Gartner’s cyst</td>
<td>04</td>
<td>08</td>
</tr>
<tr>
<td>Antioboma</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Vulval lipoma</td>
<td>02</td>
<td>04</td>
</tr>
<tr>
<td>Vulval nodule</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Inclusion cyst</td>
<td>08</td>
<td>16</td>
</tr>
<tr>
<td>Bowen disease (Vulval erosions)</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Neurofibroma of vulva</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Angiofibroma of vulva</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>Fibroepithelial polyp of labia</td>
<td>01</td>
<td>02</td>
</tr>
</tbody>
</table>
of that maximum number of cases (total 36 cases) were from age group 21 – 40. Less number of cases seen in both extremities of ages. Bartholin cyst (56%) was most common pathology in this study followed by Inclusion cyst (16%) and Gartner’s cyst (08%). Rare cases of vaginal mass like Neurofibroma of vulva, Angiofibroma of vulva, Fibroepithelial polyp of labia & Bowen’s disease are also seen.

5. Discussion

5.1. Bartholin cyst

Bartholin’s gland also known as greater vestibular gland’s most common pathology is cyst formation also known as Bartholinitis which may infected and abscess formation takes place. Theses cysts and abscesses are the most common gynecological cystic disease of the vulva all over the world. Approximately 2% of women in the world, between age group 15-45 years would develop Bartholin’s gland cyst or abscess. Obstructed Bartholin duct causes accumulation of secretions which results in formation of cyst. When this cyst became infected, abscess formation takes place. Simple and quick method of providing relief for a patient is an incision and drainage of the infected area followed by a suture closure; however, this method is prone to recurrence of cyst or abscess formation. Sitz baths are recommended for abscesses that tend to spontaneously rupture.

5.2. Gartner cyst

The vestigial remnant of the mesonephric duct in females called Gartner’s duct. Gartner cysts or mesonephric cysts of vagina originate as a consequence of the obstruction of the Gartner duct, located on the anterolateral wall of the vagina. These ducts cysts are benign lesions. These Gartner’s duct cysts are most common in females between the ages 21-75 years, maximum number of cases seen between age group 30-40 years. The Gartner duct cysts account for nearly 12% of all vaginal cysts. Risk factors for these cysts are vaginal birth delivery trauma, gynaecological procedure like colposcopy. Most commonly cysts form during pregnancy and regress after delivery. Excision may needed if cysts persists. Surgical excision was performed in all symptomatic cases.

5.3. Neurofibroma

Neurofibroma of vulva is rare benign tumour. Vulval neurofibroma makes up to 5% of all benign vulval lesions. Neurofibromatosis, the most common type of neurocutaneous syndrome, includes two conditions which are clinically and genetically separated, with an autosomal dominant pattern of inheritance. Neurofibromatosis type 1 (NF1), also called von Recklinghausen’s neurofibromatosis,
Histopathological report – Vulval mass showing hypocellular proliferation of bland spindle cells with interspersed “Shredded carrot collagen”.

5.4. Fibroepithelial Polyp

Fibroepithelial polyps also known as Acrochordons, skin tags, papillomas, which are the type of mesenchymal tumor that typically occurs in women of reproductive age group. They are mostly small in size and histologically benign.\textsuperscript{15,16} Larger lesions are rare, which are proliferation of mesenchymal cells that are hormonal sensitive subepithelial stromal layer of the lower genital tract.\textsuperscript{16} Associated with rare autosomal dominant disorder called Birt-Hogg-Dube syndrome.\textsuperscript{16} These are most common benign tumor which occurs in obese adult women with an average of 46% incidence in the general population.\textsuperscript{17} These site-specific polyps most commonly seen around neck, axilla & perineal areas and have a preference for perineal area. These polyps associated with known family history, diabetes mellitus and obesity. Mostly asymptomatic, but friction from clothing results in pruritus, inflammation which can be painful. Excision of mass is done mostly because of cosmetic purpose. Our case was of 35 year old female, Para 1 Living 1, with a huge polypoidal mass of the vulva since 5 years, on the right side labia majora, measuring about 8x10 cm. Surgical excision of the mass was done. Histopathological examination reported a fibroepithelial stromal polyp of the vulva.

5.5. Angiofibroma

Cellular angiofibroma, benign mesenchymal tumor, was first described in 1971 and which mainly involves the vulval area.\textsuperscript{18} Vulval Cellular Angiofibromas are generally painless, they may also remain undetected due to a lack of significant signs and symptoms. However, some are known to grow to large sizes and cause pain and compression of the adjoining genital organs. Cellular Angiofibroma of Vulva is generally seen in women between age group 27-63 years, while most commonly seen in women between age group 40-50 years.\textsuperscript{19} The treatment is a surgical removal of the entire tumor. The prognosis of Cellular Angiofibroma of Vulva is very good after surgical excision. This case was a 56 years old, Para 7 Living 5 Dead 2, with vulval mass since 6 years which was localized on left labia majora, measures 21x12 x2 cm mass with stalk with purulent discharge. On local site sonography of mass increased vascularity seen. More than half of mass was necrosed hence emergency surgical excision was done. Histopathological examination reported angiofibroma of the vulva.
An early form of skin cancer is Bowen’s disease which can be easily cured. It is presented as a red, scaly patch on the skin. In only 10% cases this pre-cancerous condition can progress to skin cancer. It affects the outermost layer of skin, squamous cells layer hence is also known as squamous cell carcinoma in situ. The lesion is usually very slow growing, but untreated cases may progress to very serious form of skin cancer. Bowen’s disease most commonly seen in older people between age group 60-70 years. Human papilloma virus (HPV) infection is a high risk factor to developed Bowen’s disease. HPV 16, 18, 34, and 48 are associated with Bowen disease at genital sites, in which HPV 16 is most commonly seen. Very rarely, HPV types 2, 16, 34, and 35 are associated with Bowen disease in areas of the body other than the genitals. Surgical excision is treatment of choice. The abnormal skin is scrapped off under anesthesia and skin closure is done. This was the case of a 28 year old, Para 3 Living 3, tubectomised complaining of itching and vulval erosions since 3 years, 2 x 3 cm white plaque like lesion was there on right labia minora. The skin was scrapped off under anesthesia. Histopathology examination reported Bowen’s disease.

6. Conclusion

This study helps us to get an insight of various benign vulval masses and there prevalence.

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<td>Fibroepithelial polyp of labia</td>
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Further long-term studies are required to fully assess the recurrent rates and risk of malignancy of benign vulval masses.

7. Conflict of Interest

The authors declare they have no conflict of interest.

8. Source of Funding

No financial support was received for the work.

References


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