Female Genito-Urinary Fistulas

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ABSTRACT: During the period from 1987 until 1990, twenty-eight female patients with genito-urinary fistulae were seen at King Abdulaziz University Hospital. 78.6% of which were of obstetrical etiology. Thirteen patients had small fistulae (< 2 cm) and fifteen patients had large fistulae (> 5 cm). Nine of which were considered to be giant fistulae (> 5 cm). The patients' ages, parity, nationality and duration of their fistula are presented. Our experience of repairing twenty-four fistulae showed that the cure rate was higher in small fistulae (90.9%) compared to large fistulae (60.3%). The cure rate was also found to be higher in patients who underwent the abdomino-vaginal approach (71.4%) than those who underwent the vaginal approach (66.7-85.3%).

Key Words: Genito-Urinary, Fistulas.

Introduction

Female genito-urinary fistulae are rarely a fatal condition, but the fistulae may lead to extreme embarrassment for the patient due to the associated incontinence of urine, regardless of size and site of the fistula. It manifests a surgical problem which requires extensive knowledge of various techniques for an adequate, successful repair. Vesicovaginal fistulae are still a common and serious problem for patients in developing countries where access to adequate health care is limited. The etiologic of the genito-urinary fistulae differs in various populations. With the goal of identifying the etiologic factors of female genito-urinary fistulae in our population, a study was conducted.
ving the success rate of repair by evaluating the surgical modalities, we review in this paper our recent experience of all cases of female genito-urinary fistulae in our hospital.

Material and Methods

All patients in this report were seen at King Abdullah University Hospital, Jedda, during the period from 1987 until 1989. Twenty-eight female patients with genito-urinary fistulae were evaluated, of which twenty-four underwent operative repair.

The age, parity, nationality and etiological factors were obtained from the patients’ history. All patients were subjected to our planned pre-operative investigation protocol, which included intravenous pyelogram (IVP) and examination under anesthesia, as well as cystoscopy through which the size and site of the fistulae were identified. The repairs were performed by a team consisting of a gynecologist and a urologist. The decision of the approach towards the repair was made after completing the initial pre-operative investigation protocol.

Twenty-four patients underwent surgical repair of their fistulae. Of the remaining four patients, two were terminal cases of carcinoma of the cervix, and two patients refused surgery and discharged themselves against medical advice.

The youngest patient was twelve and the oldest was sixty years old. The mean age was 35.54 with a standard deviation of 11.34. The parity ranged from 0 to 10.

The duration of the fistulae was rather interesting; in four patients, the fistulae were present for more than twenty years and in sixteen patients, for more than five years.

Table 1 shows the classification of fistulae according to size and complexity.

<table>
<thead>
<tr>
<th>Type</th>
<th>Criteria</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>&lt; 2 cm</td>
<td>13</td>
</tr>
<tr>
<td>Large</td>
<td>2.5 cm–5 cm</td>
<td>6</td>
</tr>
<tr>
<td>Gigantic</td>
<td>&gt; 5 cm</td>
<td>9</td>
</tr>
<tr>
<td>Multi-operated</td>
<td>Failed previous surgery, vesico-uretho-vaginal, with or without ureteric involvement, and small bladder capacity or altered bladder wall, secondary to irradiation and previous surgery or prolonged infection.</td>
<td>16</td>
</tr>
</tbody>
</table>

Results

Table 2 lists the causes of genito-urinary fistulae by site. Twenty-two out of the twenty-eight patients (78.6%) were of obstetrical etiology. Table 3 differentiates the
The twenty-eight patients were divided into two groups according to the size of the fistula; those with fistulae of more than 5 cm (N = 15) and those with fistulae of less than 2 cm (N = 13). In the first group, thirteen patients underwent surgical repair, nine of which were considered to be giant fistulae (more than five cm in size). Only eleven patients out of the second group underwent surgical repair. Table 4 reflects the cure rate in those patients who underwent the vaginal and abdomino-vaginal approach, respectively. The cure rate in large and small fistulae was 66.2% and 90.9%, respectively. It was also found that the cure rate in both small and large fistulae was better if the abdomino-vaginal approach was elected, rather than the vaginal ap-
proach. Regarding our failed cases, two had very small fistulae, but both had very short urethra and were awaiting to be scheduled for former surgery; one excised by uretero-sigmoid anastomosis and two were lost to follow-up.

<table>
<thead>
<tr>
<th>Type</th>
<th>Total No.</th>
<th>No. repaired</th>
<th>Vaginal</th>
<th>Abdomino-vaginal</th>
<th>Curet</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large &gt; 2 cm</td>
<td>15</td>
<td>13</td>
<td>46 (66.7%)</td>
<td>57 (71.4%)</td>
<td>9</td>
<td>69.2%</td>
</tr>
<tr>
<td>Small &lt; 2 cm</td>
<td>13</td>
<td>11</td>
<td>56 (83.3%)</td>
<td>55 (100%)</td>
<td>10</td>
<td>90.9%</td>
</tr>
</tbody>
</table>

Discussion

In 1920, Judd from Mayo Clinic and Mayo Foundation stated, "Better obstetric management has greatly reduced the number of fistulae which occur as a result of difficult labor". In a recent review from the same institution, only 8% of fistulae were due to obstetric procedures. Vesico-vaginal fistulae remain a common and serious problem for women in West Africa. Almost all cases were due to obstetric reasons.

In the present study, it was found that 78.6% of the fistulae were a result of obstetric procedures, the majority of which were due to obstructed labor. Most of these patients were referred from rural areas where adequate health care facilities are either lacking, or the patients prefer to have unattended deliveries, due to shyness or the social and educational background. In the rural areas, a large number of women still prefer to deliver at home in the attendance of a midwife, which renders health care less than optimal. For prevention, one should stress improvement in obstetrical care and hospital delivery; most important, however, is patient education.

There is no one preferred approach for all fistulae. The transvaginal approach is a simple procedure which avoids a cystotomy, involves minimal blood loss, and consequently involves less post-operative discomfort and a shorter hospital stay. In Goodwin and Scardino's series, the success rate of repairing vesico-vaginal and urethro-vaginal fistulae through the transvaginal approach was 70%. In our study, the success rate was 66.7% for large fistulae and 83.3% for small fistulae.

A high success rate was reported with the abdominal repair of vesico-vaginal fistula, using the technique described by O'Connor, whereby the bladder is bisected and the fistula excised completely, with separation of the bladder from the vagina. Enhances healing of the bladder and vagina when the omentum is positioned in between, is believed to be due to the anastomosis separating improved blood supply and optimized lymphatic drainage of the healing edge. The technique of placing healthy tissue between the repaired sites of the fistulae, mainly the omentum in the
abdominal repair and iliacal fat in the vaginal approach has been adopted by many surgeons.

Success has been the rule with the abdomino-vaginal approach, especially with interpositioning of the omentum between the vagina and bladder, with a success rate of more than 95%. In our study, the success rate in patients who underwent the abdomino-vaginal approach was 71.4% and 100% for large and small fistulae, respectively.

Out of thirteen patients with large fistulae, four had complex vesico-urethrovaginal fistula and nine had what is considered a giant fistula of larger than five cm, which is known to be the most difficult type to repair. The number of these complex fistulae reported in the literature is very small and the method of repair is not universally accepted; it varies from center to center, depending on the surgeon’s experience.

Webster et al. reported eleven cases of uretho-vaginal fistula, using Martius operation with the labial fat pads being interpositioned between the repaired urethra and the vagina. Bruatz et al. reported fifteen patients, seven with giant vesico-vaginal and eight with vesico-urethrovaginal fistulae, of which six patients required a Tansho-bladder fistula resection. Urethral repair by experience of repairing twenty-nine vesico-vaginal fistulae by a simple method through an anterior transvesical approach. In 1989, Gil-Verent et al. reported repair of forty-two complex fistulae, using a new procedure for vesical autoplasty.

In conclusion, this report underscores the importance of onstetrical care and the need to reduce the incidence of genito-urinary fistulae in our population. It also emphasizes the pre-planned, co-operative approach of gynecologists and urologists, since adequate knowledge of the various techniques and intricate surgical maneuvers are required for the successful repair of what has long been believed to be a resistant problem.

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References


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التواسير البيلىة التناسلية الأثيوية

حسن عبد الخالق ، عهدت موسي ، حسن فارسية ، فاطمة علي العلي

قسم الولاية والمرأة المساعدة ، وقسم الجراحة ، كلية الطب والعلوم الطبية

جامعة الملك عبد العزيز ، جدة ، المملكة العربية السعودية

الاستُخْطَارُ: كان معنويًا له، وإثر انتشاره، بدأ من توسير بلية تناسية في
مستشفي جامع الملك عبد العزيز بمكة بالقاهرة، سنة 1950م، وبعدها 100م.
كان الياة سنة 2 في 2، 2 من الحالات. أما بالنسبة لأعداد السّائر، فقد كانت
هناك ثلاث شريحة دائرة ضعية (أث ستة) من 22، وخمسة شريحة دائرة كبيرة (أث ستة)
سما، في حين اعتبرت تسهيلات توسير عالية (أث ستة) في 2، وتوضير في هذه
الدراسة الحالات الأقل المضمنة بمقابلة، وبدع الويلات بالإضافية عند جوا والتوسع.

الظهرء عبتران إلى علاج هذه الحالات أن مدف النكهة كان مثالية بالنسبة للتواسير
التي تُعبَر عن (1982) في حين كان (28.6), (74.1), (70.6) الرأس إلى النزاع (1982).
في حين كان (28.6) من تلك عندما كان تدف النكهة من خلال
المفهوم (74.1). (70.6)