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Recto-vaginal fistulas of obstetrical origin: Epidemiological aspects and therapeutic approaches in the general surgery department of the Idrissa POUYE general hospital

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Abstract

Introduction: The recto-vaginal fistula is a pathological communication between the posterior wall of the vagina and the anterior wall of the rectum, through the recto-vaginal septum. Fistulas of obstetric origin remain common in developing countries.

Aim: To describe the epidemiological aspects of obstetric rectovaginal fistulas in our department and discuss the results of treatment.

Patients and methods: retrospective multicentre study from January 1, 2014 to December 31, 2022, collecting 13 cases of obstetrical rectovaginal fistula treated in the general surgery department of the Idrissa POUYE general hospital.

Results: The median diameter of the fistula was 12 mm. The treatment had consisted of a suture excision in 1 patient. A perineotomy with simultaneous reconstruction in 2 cases; a perineotomy and two-stage reconstruction according to Musset in 10 cases. Complete healing after the first operation was found in 10 cases, complete healing but at the cost of dyspareunia was noted in 1 case. A definitive failure was found in 2 cases.

Conclusion: Obstetric RVFs are rare but they have not completely disappeared in Senegal despite the efforts made. The 2-stage surgical treatment according to MUSSET gives good results but the best treatment remains preventive because of the serious socio-economic repercussions of this pathology.

Keywords: Recto-vaginal fistula, reconstruction, Musset

Introduction

Rectovaginal fistula (RVF) is defined as the pathological communication between the posterior wall of the vagina and the anterior wall of the rectum through the rectovaginal septum. It connects the posterior wall of the middle and lower segment of the vagina with the anterior wall of the sub-peritoneal rectum, which lacks a meso, via a tenuous condensation of collagen fibres, mixed with longitudinal muscle fibres from the rectal muscularis. There are multiple aetiologies, including post-radiation, neoplastic, iatrogenic and obstetric [1].

The management of RVFs depends on the location, size and cause of the fistula. The principles of treatment are based on excision of the fistula with interposition of healthy tissue with or without a graft. A possible sphincter deficit must also be repaired [2].

The aim of this study is to describe the epidemiological aspects of obstetric rectovaginal fistulas in our country and to discuss the results of surgical treatment.

Patients and Method

This is a retrospective descriptive monocentric study of 13 patients collected in the general surgery department of the Idrissa POUYE general hospital in Dakar from January 1, 2014 to December 31, 2022.

The inclusion criteria were fistulas secondary to dystocic deliveries, instrumental manoeuvres and obstetric surgery. The primary outcome was the final result after surgical treatment. Definitive outcome was defined as either failure or success of surgical treatment. Definitive failure was defined as persistent symptomatology and persistent rectovaginal fistula on clinical and morphological examination.

Functional results were sought on questioning: they were judged to be excellent when the patients presented no symptoms postoperatively with normal and satisfactory sexual activity. They were judged to be average when the patients presented a dyspareunia that was not very annoying and without major repercussions.

without major repercussions. The results were judged to be poor in the case of major dyspareunia or the persistence of the recto-vaginal fistula.

Results

The average age of the patients was 32 years with extremes between 18 and 45 years. They had no comorbidities. Seven of these patients were primiparous, two patients were second gestational and four patients had more than two deliveries in their history. These recto-vaginal fistulas were secondary to a laborious vaginal delivery in 13 cases (100% of cases).

The circumstances of discovery were the passage of stool or gas through the vagina in 10 cases (76.9%) and chronic recurrent vaginitis in 3 cases (23.1%). The median time from diagnosis to delivery was 8 months with extremes ranging from 3 to 23 months. The lesion assessment included examination of the vagina, the perineum and the rectum with a study of the tone of the anal sphincter. This lesion assessment was based on a physical examination and complementary examinations. The physical examination included a complete proctological examination in all cases, essentially assessing the sphincter tone, which was normal in 7 cases. A rectoscopy with speculum examination was performed in all our patients. At the end of the preoperative work-up the median diameter was 12 mm [extremes: 0.2-35 mm]. The surgical procedures performed were essentially a perineotomy and two-stage reconstruction according to Musset in 10 cases, a perineotomy with simultaneous reconstruction in 2 cases, and an excision and suture in 1 case. The average hospital stay was 7 days with extremes ranging from 3 to 12 days.

The functional results were considered excellent in 10 cases, good to partial in 1 case and poor in 2 cases.

Discussion

Although this study was monocentric with a small sample size, it allowed us to observe that obstetric rectovaginal fistula has become increasingly rare in Senegal. It is a pathology of young women essentially primigravida in a context of dystocic delivery. It is exceptional in developed countries, while it persists in underdeveloped countries [2, 3, 5]. In 1989, WHO estimated that more than 2 million women with obstetric fistula remain untreated in developing countries and that at least 50,000 to 100,000 new cases occur each year. But the secrecy and shame associated with the condition pose difficulties when trying to estimate its prevalence [5, 6]. Some in-depth studies suggest that the actual number of women living with untreated rectovaginal fistula and suffering from the resulting pain and decay may have been underestimated. The number of women living with RVF may be between 100,000 and one million in Nigeria [7] and over 70,000 in Bangladesh [2]. Recent studies have found the incidence of fistula to be between 1-3 per 1000 deliveries in West Africa and between 5-10 per 1000 deliveries in some rural areas of Africa [8]. The incidence of fistulas in developed countries is much lower [9, 10]. The positive diagnosis is essentially based on clinical findings: the major functional sign is the passage of stool or gas through the vagina. In the literature this sign is found in more than 80% of cases. These results are consistent with our series where 76.9% of patients

had this symptom [11]. Other signs that can be observed are purulent discharge from the vagina, chronic or recurrent vaginitis and recurrent urinary tract infections. The clinical examination must be done in a meticulous manner and in most cases allows the diagnosis to be confirmed, especially when it is done under general anaesthesia. It shows the fistula, specifies its size, its location and the appearance of the underlying vaginal wall. A search should be made for associated bladder damage [1, 4]. This examination should be complemented by an examination of the anal sphincter tone and a methylene blue test if the fistula is not obvious to determine. Complementary examinations have little place in the positive diagnosis. However, anoscopy and rectoscopy allow examination of the anal canal, the rectal mucosa, to search for the primary orifice of the fistula and to perform biopsies [12]. For some authors, a sphincter assessment is systematic before deciding on the therapeutic attitude. This assessment includes at least an endoanal ultrasound and rectal manometry [13]. The treatment of these LIFs is always surgical. The aim is to interrupt the communication between the rectum and vagina by removing the fistulous path and suturing healthy tissue. Several techniques have been described in the literature. According to some it exposes. The authors of this study reported frequent recurrences. Musset's procedure consisting of a longitudinal perineoproctotomy with immediate or delayed repair is the reference procedure [14]. In the initial procedure described by Musset in 1937, he proposes to wait several weeks between the first longitudinal perineotomy and the repair of the perineal body, whereas other authors [15, 16] propose, for simple rectovaginal fistula, to combine perineotomy and perineal repair in the same operation. The results of the treatment of rectovaginal fistula by the two-stage Musset procedure give good results, whereas the one-stage operation exposes the patient to recurrence. The cure rate varies from 75 to 100% according to the authors [16, 17, 18]. In our series, this technique was used in only 10 cases. Other authors have opted for a simple suture, or a rectal advancement flap: This technique has the advantage of simplicity and sphincter preservation. It is therefore indicated if there is no sphincter injury [10, 19, 20]. For several authors, it is the most commonly used technique for the treatment of low and medium level rectovaginal fistula with varying degrees of success [18, 19, 20, 21, 22]. In the literature, the success rate is around 70-80% during a follow-up of 1 to 2 years, sometimes 3.6 years [23, 24]. In some studies it is even 100% [25, 26, 27]. For others, obesity and recurrent repairs are the main factors determining long-term outcomes [28].

Conclusion

The frequency of obstetric fistula reflects the state of progress in obstetrics in a country. Our work has allowed us to observe a clear decrease in obstetric fistulas in recent years, thanks to the national perinatal programme. Appropriate management will allow patients to avoid major psychological problems and facilitate their reintegration into society. The treatment is simple and will be carried out as soon as the diagnosis is made. However, the best treatment of these fistulas is based on their prevention.

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Author's Contribution

Not available

Conflict of Interest

Not available

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