Vesico-Vaginal Fistula of Obstetric Origin Inaccessible Vaginally: A Case report and Literature Review

Introduction

Obstetric fistula, a complication of neglected dystocial labor remains a social problem despite the progress made in improving health status in developing countries [1]. The difficulty of treating vesico-vaginal fistulas is well known and the proposed repair techniques are numerous [2]. The choice of the route of repair is not unequivocal, because the best way is that which provides operating comfort [3].

We are reporting a clinical case of a vesico-vaginal fistula, class IV; of which however the labor was monitored in an advisable health care facility, in a parturient of mature age. The operating difficulties encountered, and the early delay between the occurrence of fistula and the surgical treatment used made it a particular clinical case.

Observation

Clinical case

Mrs. x Lesly, 32 years old, a dressmaker by profession, married and living in Brazzaville, admitted in the Obstetric-Gynecology Department of the Teaching Hospital of Brazzaville, on June 15th, 2016 for urinary incontinence evolving for 2 weeks. Past medical history revealed an ovarian cystectomy in 2012. She is G2P2, with one 12 years living child, and 1 stillborn. A month before, she had a prolonged labor, on a 40 weeks’ gestation pregnancy, this lead the physicians to perform a caesarean section (C/S) due to failure of commitment. The time spent between the indication and the extraction was extended by approximately 5 hours due to logistical problems. The C/S had allowed the extraction of a dead and macerated male fetus, weight = 3500 grams. During the operation, it was a badly flipped head. The operational suites were simple.

One week after discharge, a urinary incontinence characterized by the permanent staining of underwear and lingerie justified a consultation at the Obstetric-Gynecology Department of the Teaching Hospital of Brazzaville. After the methylene blue test, the diagnosis of an obstetric vesico-vaginal fistula was made. It was a fistula affecting the neck of the bladder, sized about 2 centimeters, with friable margins. We decided to perform a surgical repair. A preoperative evaluation, the palpation of the fistula, physical examination was unremarkable, the methylene blue test confirmed the diagnosis of a vesico-vaginal fistula. Preoperative laboratory investigations, hemostasis, fasting blood glucose and renal function were normal. A moderate anemia (hemoglobin of 9.2g / dl) was noted. Her blood group was A positive.

On June 22nd, 2016, the decision to do the surgical repair was made. The patient was placed in a gynecological position, with the seat overflowing by 20 centimeters the edge of the table. We practiced the asepsis of the operating fields by pyridone iodine badoning of the vulva, the vagina and the abdomen. A better exposure was obtained by the exposure of the spread and semi-elongated thighs. The vulva exposure was obtained by the attachment to the threads. The draping was done with sterile linen. Peri-fistular infiltration did not change anything. During the operation, the examination under the spinal anesthesia, then converted into general anesthesia, showed a trigonal fistula of 3 centimeters, with a bladder hanging strongly the posterior face of the pubic symphysis and not surgically accessible vaginally. The attempt of the surgical repair of the fistula via a vaginal approach was unsuccessful. The right medio-lateral episiotomy...
performed to optimize chances of success did not change anything. It was a class IV vesico-vaginal fistula, inaccessible vaginally. The abdominal approach was practiced by the surgeon via a Pfannenstiel incision, and approaching the pubic symphysis behind without peritoneotomy. After bladder tracing and cystotomy, urethral intubation was performed with nasogastric tube number 6. Vesico-vaginal duplication was impossible. Due to the access, we decided to do a fistulorrhapsy by raveling the banks without resection. The bladder was sutured on its posterior wall with transvesical over lock tied to the vicryl 2/0 and a main plane and a reinforcement plane, on anterior wall with tied up in 2 plans with avicryl 2/0. The water tightness test was performed using the methylene blue test after the first anterior bladder plan. We performed the episiotomy and vaginal suture and drainage of the Retzius space. During the operation, the patient did not receive a prior evacuator enema, there was a relaxation of the anal sphincter with emission of stool. Blood loss was estimated at 700 ml. The drain was kept up for 5 days and the Foley probe up to 21 days.

After the procedure, antibiotic prophylaxis during 2 days (Cefritaxon 2 grams / day and Gentamycin 160 mg / day) was given, combined with anticoagulants (Lovenox, 4ml / day); analgesics were given on demand (paracetamol). Intravenous fluids were necessary followed by oral fluids starting gradually up to 6 liters per 24 hours with a patient’s good tolerance. At the thirteenth day after the operation, a drop of the perineal suture occurred with urines frankly suspicious of a pyuria, but the evolution was quickly favorable under empiric antibiotic therapy. A preventive measure, mainly a communication for behavioral change was also made and was based on: no sexual intercourse before 6 months, no pregnancy before 2 years, hence the necessity of contraception measures for 2 years. Formal prohibition of subsequent vaginal delivery.

Discussion

The patient was 32 years old, a paid employee, living in an urban area, who directly consulted an appropriate health facility. If poverty could be likened to the delay of purchasing drugs to be used for the operation, responsible for the delay and the instruction and the performance of the caesarean section, the other aspects are in opposition with data from the literature which report that obstetric fistula mostly occurs in adolescents, with early marriage, using harmful traditional practices and living far from health care facilities [1, 4]. While some authors report that the majority of patients with fistulas are referred from rural health care facilities, they also think by analogy that obstetric fistula regresses from the capital to rural areas[5], in our case, a tertiary health care facility is concerned.

The aspect of prolonged ischemic compression of the pelvic planer by the fetal head, which is enclosed during the labor, can be explained by the notion of the non-commitment to complete dilatation du to an incorrectly flipped fetal head; this corroborates with the literature data on obstetric fistula [1, 6]. In this clinical case, 5 hours were enough to the necrosis of soft tissues surrounding the vagina and the bladder because of the interruption of blood low or ischemia. A pressure ulcer would be formed afterward, thus explaining the subsequent occurrence of the fistula.

Despite aseptic precautions and the antibiotic prophylaxis according to the usual protocol [7], the perineal sutures dropped and pus in urine appeared. The releasing of the anal sphincter, with stool delivery during the procedure could have been the cause. It is recommended, to prevent infection after the operation, that laboratory investigations (mainly stool and urine analysis, the syphilis, the HIV and the viral hepatitis B tests) be performed [7]. The management of the fistula was undertaken just one month after its onset, without any particular complication. In current practice, a 3 months’ period is necessary before any surgical repair of obstetric fistula [1-8]. Antravaginal approach was the first one used at the beginning, but in face of difficulties despite the dexterity and the experience of the surgeon, an transabdominal approach was finally needed. Dupont et al., stated that the approach to fistula repair is not unequivocal, the best one being that which provides a good comfort for the surgeon [9]. Some authors have even drawn attention to the effectiveness of the use of the transvaginal approach in the prone position [10]. But, it is conventional to recognize that if no single technique should be used when an unexperienced surgeon in involved, the choice of the transvaginal orthetransabdominal approach depends on the experience of the surgeon, the location of fistula and the extent of lesions [7]. Other authors have established a prognostic classification of obstetric fistulas for a better assessment of therapeutic success possibilities [11]. The operative technique used was fistulorrhapsy by bank reversion without resection. The difficulty of treating vesico-vaginal fistulas is well known and the proposed repair techniques are numerous [2].

Despite mild postoperative complications, healing is possible for our patient. Operative success depends on the resorption of inflammatory phenomena and the healing of tissues around the fistula within 10 to 12 weeks [1]. The success of the surgical repair of obstetric fistula depends greatly on the quality of postoperative care. For some authors, peripheral neurological involvement has always been underestimated in the management of obstetric vesico-vaginal fistula, the fistula being just the apparent manifestations of «neuro-vesical damages» which remain determinants for the prognosis. They explain for a large part the frequency of therapeutic failures [5].

Conclusion

The epidemiological factors of obstetric fistulas can be nuanced, the pathogenesis remains unchanged, and despite the several surgical techniques, the expertise of the surgeon is essential.

Acknowledgement

None.

Conflict of Interest

The authors declared no potential conflicts of interest.

References

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