CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.3334202

Available online at: http://www.iajps.com *Research Article*

SUPRATRIGONAL VESICOVAGINAL FISTULA REPAIR BY MODIFIED O'CONNOR'S TECHNIQUE USING A FREE SUPPORTING GRAFT

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Article Received: May 2019 **Accepted:** June 2019 **Published:** July 2019

Abstract:

Background: *A vesicovaginal fistula (VVF) is a careful issue and is related to numerous social results. Numerous methods including various methodologies and various tissues as intervention unions have been proposed for the fix of the VVF. We are revealing our experience of VVF fix with free omental unite through Transperitoneal transvesical approach.*

Objective: *The goal of the present investigation was to evaluate the result of supratrigonal vesicovaginal fistula fix by changed 0, Connors' procedure.*

Patients and Methods: *This illustrative investigation was carried out at Mayo Hospital, Lahore from December 2017 to January 2019. After a point by point restorative history, physical examination, per vaginal appraisal, cystoscopy and radiological and research centre stir up these patients experienced VVF fix. Postoperatively these were evaluated for recuperation, the disappointment of fistula and the advancement of any difficulties. Patients were reexamined before releasing from the emergency clinic. Follow up visits were arranged following 2 weeks and afterwards following 3 months so as to evaluate the achievement of a fix.*

Results: *Mean age of the patients was (37.5 ± 11.7) years. A large portion of the patients (8) were from the low financial group. Six patients had essential fistulae while 3 had repetitive. One patient had right ureteric dilatation because of iatrogenic ureteric ligation. The measure of fistulae noted amid the medical procedure was < 2 cm in 5 patients and > 2 cm in 4 patients. Normal employable time was (72 ± 15) minutes. Normal emergency clinic stay was (9.4 ± 3) days. Achievement rate was 100% as none of the fixes fizzled. Minor urinary spillage, negligible hematuria and laparotomy wound contamination settled unexpectedly.*

Conclusion: *Free omental join through trans abdominal transvesical approach for VVF fix is related with exceptionally low horribleness and conveys a high achievement rate.*

Keywords: *Vesicovaginal, Tissues, Omental, Vaginal, Cystoscopy, Radiological, Operative, Fistula, Recovery and Contamination.*

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Please cite this article in press Maha Shehzad Mughal et al., ***Supratrigonal Vesicovaginal Fistula Repair By Modified O'connor's Technique Using A Free Supporting Graft.,*** *Indo Am. J. P. Sci, 2019; 06(07).*

INTRODUCTION:

Vesicovaginal fistula (VVF) has been a social and careful issue for quite a long time. The definite frequency of this issue in Pakistan is obscure, be that as it may, the announced occurrence in other creating nations is 1-2/1000 conveyances with 500,000 cases happening every year [1]. The aetiology of the VVF is complex yet in around 80-90% of the cases, it happens as an obstetrical complication [2]. Unfortunately, in nations like Pakistan, obstetric VVF results from delayed work, while in the west over 70% pursue pelvic surgery [3, 4].

VVF is related to multifaceted horribleness as it not just prompts difficulties like nearby disease and vesical calculi development however the consistent foul scent makes the female a social outcast [1]. VVF can show up 1 a month and a half after a gynaecological or obstetric medical procedure and intermittent fistulas can happen inside 3 months of essential fistula repair [3]. Different strategies have been proposed for the fix of the VVF [5, 9]. All things considered, the basic idea is of the layered conclusion of the fistula, to keep away from disappointment. For supratrigonal VVF, O'Connor procedure has been the most acknowledged technique when the transabdominal fix is employed [10]. The traditional O'Connor activity uses the suprapubic access for additional peritoneal dismemberment of retropubic space to analyze the urinary bladder, trailed by long saggital cystotomy conveyed till the fistula, which is extracted and after that fix is done in two layers by utilizing tissue intervention among vagina and bladder suture line [10]. The utilization of momentum as an intervention tissue has been accounted for to improve the achievement rate [11 – 13]. In the vast majority of the arrangement, the utilized omentum was pedicled graft [14]. The achievement is professed to be because of its vascularity, it's capacity to give substitution tissue and a system for the assimilation of flotsam and jetsam. Free omentum was 1st utilized by Senn in 1888 yet its utilization couldn't be promoted in view of the idea of putrefaction without vascular supply, yet Brocq et al. set up the way that the free omental join endures while protecting its particular character- and that, histologically, there is surprising determination of the endothelium [15, 16]. In an ongoing methodical survey, Algumuthu et al. have announced the natural noteworthiness of omentum, its gigantic restorative potential and its application in the different controls of careful practice [17]. Here in we depict our adjustments of the O'Connor procedure for fixing a supratrigonal VVF utilizing trans peritoneal approach alongside free omental unite rather of pedicle omentum. The goal of the present examination was to survey the result of supratrigonal vesicovaginal fistula fix by altered 0' Connor's procedure utilizing free supporting union.

PATIENTS AND METHODS:

This illustrative investigation was carried out at Mayo Hospital, Lahore from December 2017 to January 2019. An itemized medicinal history was recorded concentrating on the age, equality, term of work so as to know the reason for fistula and past endeavours at a fix. Per vaginal evaluation was done to examine and palpate the vaginal opening of the fistula. Cystoscopy was done in patients before affirmation by urologist aside from one in whom it was finished by colleague build up the supratrigonal area of fistula and to evaluate its closeness to ureteric holes. Excretory urogram was performed in 5 patients in whom cystoscopy uncovered shut nearness of fistula with the ureteric opening. Two patients of repetitive VVF having nearby genital contamination were treated before the medical procedure with neighbourhood clean measures and anti-infection agents and in 3 patients paleness was treated with blood transfusions before the medical procedure so as to raise haemoglobin level at any rate up to 10g/d1. While quiet in recumbent position under general anaesthesia, midriff was opened by means of an infra-umbilical midline cut in all patients. The peritoneum was opened to approach the back surface of the urinary bladder and gut was delicately pressed with wipes. In the wake of putting stay sutures on the back mass of urinary bladder, a short back midline cystotomy was done and conveyed up to fistula. So as to limit urinary spillage, viable suction was utilized. The nearness of ureteric hole with VVF was evaluated and 5-6 Fr baby sustaining cylinders were utilized to stent both the ureters in all patients before starting the dismemberment of fistula. A plane of analyzation was made among bladder and vaginal vault/cervix, and fistula extracted dealing with ureters. For vaginal vault conclusion, 2/0 intruded on vicryl sutures were utilized. The comparable strategy was utilized to close the deformity in the urinary bladder. After this, a dainty bit of free omentum was intervened among vaginal and bladder suture line and any crude omental edge turned under and sutured. In all patients, the pelvic channel was set. Cystotomy shut utilizing 2/0 vicryl suture in ceaseless design in two layers and urinary bladder depleted utilizing 16F Foley catheter. Suprapubic cystostomy was not utilized in any of the patients. Stomach conclusion was finished by utilizing the standard procedure. Post usable sufficient anti-microbial spread was managed for 5 days. Pelvic channel evacuated following 48 hours and urinary catheter expelled following 10 days in all aside from in one patient in whom it was

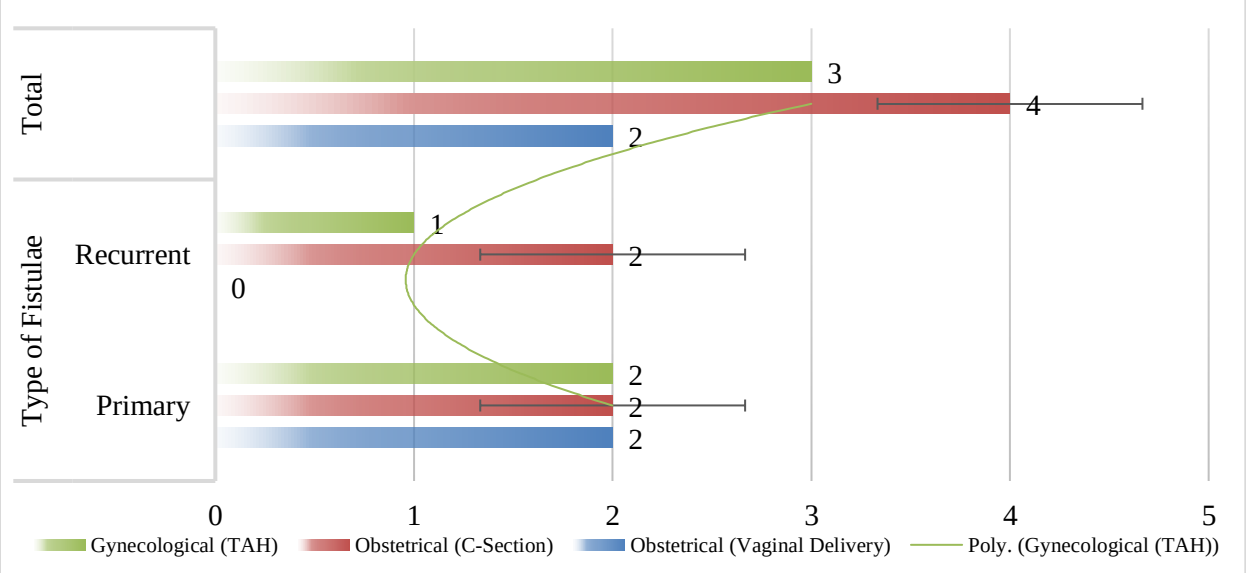
evacuated following 3 weeks. Patients were reevaluated before releasing from a medical clinic. They were encouraged to maintain a strategic distance from copulation for a quarter of a year. Follow up visits were arranged following 2 weeks and afterwards following 3 months so as to see the accomplishment of a fix.

RESULTS:

Nine patients were worked for VVF utilizing the altered O'Connor method. Mean age of the patients was (37.5 ± 11.7). The most youthful patient was of 23 while the most established was of 60 years old. A large portion of the patients (8) were from the low financial group, one was from the working class and nobody was from a higher class. The most widely recognized protest was spillage of pee per vaginum. The number of kids went from 2 to 6. The number of patients having youngsters 3 or less was 5; 4 patients had kids more than 3. The method of last conveyance and reason for VVF has appeared Table I. Six patients had essential fistulae while 3 had repetitive. Two patients with intermittent fistulae had a history of hindered work pursued by crisis C-Section and one patient had a history of transabdominal hysterectomy because of useless uterine dying. IVU was done in 5 patients. It was observed to be ordinary in 4 while one patient with a history of TAH had right ureteric dilatation and right-sided hydronephrosis proposing iatrogenic ureteric damage/ligation. Cystoscopy was done in every one of the patients. Discoveries of cystoscopy like size and site were reliable with per usable discoveries in 8 patients. In one patient size of fistulae on cystoscopy was incorrectly thought little of. The extent of fistulae noted amid the medical procedure was < 2 cm in 5 patients and >2cm in 4 patients. A large portion of the patients (6) had fistulae in the midline, 2 had near the left ureter while one had near the correct ureter. Normal usable time was (72 ± 15) minutes. Normal emergency clinic stay was (9.4 ± 3.0) days. In the greater part of the patients, Foley catheter was expelled on eighth post employable day. Post usable recuperation was uneventful in the larger part of the patients. Achievement rate was 100% as none of the fixes fizzled. Minor urinary spillage, negligible hematuria and laparotomy wound contamination settled suddenly. Emotional improvement in personal satisfaction was accounted for in the majority of the patients.

Table: Etiology of VVF as noted in patients (N=9)

Aetiology		Type of Fistulae		Total
		Primary	Recurrent	
Obstetrical	Vaginal Delivery	2	0	2
	C-Section	2	2	4
Gynecological	TAH	2	1	3
Total		6	3	9



DISCUSSION:

Mean age at which the patients experienced fistulae fix was 37.5 years. The patients were more seasoned than those revealed in the vast majority of the Indian and African Series [8 – 20]. The distinction might be a result of the actualities that more than 55 % of the patients were more established than 40 years old, as it is possible that they had created fistulae after TAH or they had displayed for the fix of an intermittent fistula. Besides, the vast majority of the African investigations have referenced the time of advancement of fistulae instead of the time of fix. In our investigation, 66.6 % of the patients created fistulae as a result of the obstetrical reasons. Comparable discoveries have been accounted for by others from immature countries [21 – 23]. However, in the western world, the majority of the vesicovaginal fistulas are gynaecological in origin [22]. Almost all patients of VVF worked in our unit conceived an offspring either at home or at a medical clinic with for all intents and purposes no obstetric offices. Additionally, cesarean segments were done at emergency clinics with questionable obstetric offices. Thaddeus and Maine revealed that in creating nations, the result of blocked work and its difficulties are affected by postponement in choice to look for consideration; delay in landing in a human services office; and deferral in the arrangement of satisfactory consideration [24]. Our outcomes demonstrated that 44.44% of the infants were conveyed by cesarean segment. The cesarean area won't generally avoid fistula arrangement. The utilization of the partograph separates ordinary from irregular advancement and distinguishes those ladies liable to require intervention [25]. Specialists vary in their way to deal with fix vesicovaginal fistula running from transvaginal and transabdominal to laparoscopic. The chose course of fix depends for the most part on the preparation and experience of the specialist. The best methodology is presumably the one wherein the specialist is most experienced [26]. Hilton P et al referenced that a consolidated Transperitoneal-transvesical strategy is especially valuable for VVF following cesarean area [1]. We utilized a similar methodology since the greater part of our patients had iatrogenic fistulas because of past medical procedure infringe clinics. Achievement rate in our investigation was 100 % as none of the fistulae fizzled and it was steady with that referenced in writing. Lee RA et al and Nanninga JB et al have detailed accomplishment from 94-100% for the transabdominal approach [27, 28]. This is superior to the transvaginal and laparoscopic approaches. Achievement rate extending from 82-94% have been accounted for the transvaginal approach and 93% for the laparoscopic fix [3, 29, 30]. With respect to the utilization of mediation join, again the decision is variable. Evan and partners have suggested an intervention fold while drawing nearer Trans abdominally, paying little mind to fistula aetiology [31]. A large portion of specialist utilizes a pedicled omentum in the transabdominal fix of VVF [1, 32]. It is estimated that the omentum tissue advances twisted recuperating through mitigating pathways, and in light of the fact that the omentum is rich in adipocytes, these may balance the calming responses [33, 34]. However, in our examination we checked on the idea of Brocq et al. that the free omentum could be set between two suture lines with as great outcomes as pedicled omentum [16] (Free omentum wound up disagreeable as of late due to its dread of putrefaction). By the by, the procedure of transplantation of free omentum is significant. We would say the best outcomes with free omental unite are accomplished when we utilize the slenderest and most vascular zone of omentum; the join stretches out past the crude region to be secured; the edges are turned under and exceptionally fine catgut sutures are utilized and put near one another around the periphery of graft. We found no instance of post employable putrefaction showing as sore or even minor disease (leucocytosis with fever) in any of our patients. The achievement rate of our system utilizing free omentum was a lot higher than that detailed in writing for different kinds of unions. For example, Raz S has portrayed an 82% achievement rate with the fold part system joined with an adjunctive peritoneal fold methodology and Vyas and colleagues have announced of a 91% achievement rate utilizing mucosal autografts for a fix of VVF [12, 35]. Be that as it may, the aftereffects of join from the foremost stomach divider fat as revealed by Moharram and those of gamma-emanated human dura mater as announced by Alagol and colleagues are practically identical to our method [36, 37]. Grimness in our patients was unimportant.

CONCLUSION:

Free omental unite through trans-stomach trans-vesical approach for VVF fix is related to low dreariness and conveys a high achievement rate.

REFERENCES:

1. Hilton P. Vesicovaginal fistula in creating nations. Int J Gynecol Obstet 2003; 82:285-95.
2. Parveen F, Shah Q. Vesicovaginal fistula: a challenge for ladies in creating nations. J Coll Physician Surg Pak 1998; 8:230-2.
3. Hilton P, Ward A. Epidemiological and careful parts of urogenital fistulae: An audit of multi-

year involvement in south-east Nigeria. In Urogynecol J Pelvic Floor Dysfunct 1998; 9:189-94.
4. Hilton P. Careful fistulae. In Cardozo L, Staskin D, editors. Course book of female urology and urogynecology. London: Isis Media Ltd, 2001.p.691-709.
5. Elkins TE, DeLancey JO, MC Guire EJ. The utilization of changed Martius joins as an adjunctive procedure in vesicovaginal and rectovaginal fistula fix. Obstet Gyneco11990; 75:727-33.
6. Elkins TE. Medical procedure for the obstetric vesicovaginal fistula: a survey of 100 activities in 82 patients. Am J Obstet Gyneco11994; 170:1108-18.
7. Fitzpatrick C, Elkins T. Plastic careful strategies in the fix of vesicovaginal fistulas: a survey. Int Urogynecol J 1993; 4:287-95.
8. Sotelo R, Mariano MB, Garcia-Segui A, Dubois R, Spaliviero M, Keklikian W. Laparoscopic fix of vesicovaginal fistula. J Uro12005; 173:1615-8.
9. Gil-Vernet JM, Gil-Vernet A, Campos JA. New careful methodology for the treatment of complex vesicovaginal fistula. JUro11989; 141:513-6.
10. O'Connor VJ. Audit of involvement with vesicovaginal fistula fix. J Urol 1980; 123:367-9.
11. Ostad M, Uzzo RG, Coleman J. Utilization of a free bladder mucosal join for a basic fix of vesicovaginal
1. fistulae. Urology 1998; 52:123-6.
12. Raz S, Bregg KJ, Nitti VW. Transvaginal fix of vesicovaginal fistula utilizing a peritoneal fold. J Urol 1993; 150:56-9.
13. Nahai F. Muscle and musculocutaneous folds in a gynecologic medical procedure. Clin Obstet Gynecol 1981; 24:1277-317.
14. Von Theobald P, Hamel P, Febbraro W. Laparoscopic fix of a vesicovaginal fistula utilizing an omental J fold. Br J Obstet Gynecol 1998; 105:1216-8.
15. Senn N. An Experimental Contribution to Intestinal Surgery with Special Reference to the Treatment of Intestinal Obstruction. Ann Surg 1888; 7: 367-75.
16. Brocq P, Ducastaing R, ReillyJ. Test Study of omentum joins. J De Chir 1922; 20:357-78.
17. Alagumuthu M, Das BB, Pattanayak SP, Rasananda M. The omentum: An extraordinary organ of excellent adaptability remarkable flexibility. Indian J Surg 2006; 68:136-41.
18. Kapoor R, Ansari, Singh P, Gupta P, Khurana N, Mandhani An, et al. The executives of vesicovaginal fistula: An encounter of 52 cases with a legitimized calculation for picking the transvaginal or transabdominal approach. Indian J Urol. 2007; 23: 372-76.
19. Kelly J. Ethiopia: an epidemiological investigation of vesicovaginal fistula in Addis Ababa. World Health Stat Q 1995; 48:15-7.
20. Muleta M. Socio-statistic profile and obstetric experience of fistula patients oversaw at the Addis Ababa Fistula Hospital. Ethiop Med J 2004; 42:9-16.
21. Sachdev PS, Hassan N, Abbasi RM, Das CM. Genito-Urinary Fistula: A Major Morbidity in Developing Countries. J Ayub Med Coll Abbottabad 2009; 21:8-11.
22. Hadley HR. Vesicovaginal fistula. Curr Urol Rep 2002; 3:401-7.
23. Dalila D, Goel A, Shakhtar SN, Singh KM. Vesical calculi with unrepaired vesicovaginal fistula. Clinical evaluation of an unprecedented affiliation. J Urol 2003; 170:2206-8.
24. Thaddeus S, Maine D Too far to walk: maternal mortality in the setting. Soc Sci Med 1944, 38(8):1091-1110.
25. WHO (1994). Partograph cuts complexities of work and labour. Safe Mother (15):10.
26. Kumar S, Kekre SN, Gopalakrishnan G. Vesicovaginal fistula: An update. Indian Urol 2007; 23:187-91.
27. Lee RA, Symmonds RE, Williams TJ. Current status of genitourinary fistula. Obstet Gynecol 1988; 72:31-39.
28. Nanninga JB, O'Conor VJ Jr. Suprapubic transvesical conclusion of vesicovaginal fistula. In: Buchsbaum HJ, Schmidt JD, editors. Gynecologic and obstetric Urology. WB Saunders Co: Philad; 1993.365-9.