#374 Evaluate the Recurrence risk factors in the Patient after the Surgical Repair of Vesicovaginal fistula

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Introduction

- One of the major complications of VVF surgery is recurrent fistula formation and it is difficult to prognosticate factors responsible for recurrence
- In spite of large-scale research on VVF, there are very few studies addressing the factors which predict the possible outcome of surgical repair
- The current study was planned to review characteristics of the patients, fistula and the surgical procedures in order to identify the factors helpful in determining the prognosis of surgical repair of VVF

Methodology

- The retrospective study was collected data of patients with clinically recurrence vesicovaginal fistula after vesicovaginal fistula surgery from January 1969 to December 2020
- All the patients who had previous VVF surgery were included in the study

Results

Table 1 Demographic data

Variable	Total n=81	Success n=48	Recurrent n=33	P-value
Age (year), mean±SD	46.8±9.2	47.7±8.9	45.5±9.7	0.289
Weight (kg), mean±SD	58.8±8.9	57.1±7.6	61.3±10.3	0.042
Height (cm), mean±SD	156.8±5.1	156.7±5.3	156.9±.50	0.844
BMI (kg/m^2), mean±SD	23.9±3.6	23.3±3.2	24.8±4.1	0.058
Parity, n(%)				
Nulliparous	1(16.7)	1(20.0)	0	0.999
Uniparous	4(66.6)	3(60.0)	1(100)	
Multiparous	1(16.7)	1(20.0)	0	
Size group, n(%)				
< 10 mm	51(62.9)	34(70.8)	17(51.5)	0.102
≥ 10 mm	30(37.0)	14(29.2)	16(48.5)	
Number, n(%)				
Single	78(96.3)	46(95.8)	32(97.0)	0.999
Multiple	3(3.7)	2(4.2)	1(3.0)	
Location, n(%)				
Supratrigone	75(92.6)	46(95.8)	29(87.9)	0.219
Infratrigone	6(7.4)	2(4.2)	4(12.1)	
Etiology, n(%)				
Hysterectomy	75(92.6)	45(93.7)	30(90.9)	0.683
Labor	3(3.7)	1(2.1)	2(6.1)	0.564
Other	7(8.6)	4(8.3)	3(9.1)	0.999
Route repair, n(%) n=76				
Transvaginal	21(27.6)	7(14.6)	14(50.0)	< 0.01
Transabdominal	44(57.9)	33(68.7)	11(39.3)	
Laparoscopic	11(14.5)	8(16.7)	3(10.7)	
Flap interposition, n(%) n=64				
No	19(29.7)	8(17.0)	11(64.7)	< 0.001
Yes	45(70.3)	39(83.0)	6(35.3)	
Post-op UTI, n(%) n=68				
No	63(92.6)	47(97.9)	16(80.0)	< 0.05
Yes	5(7.4)	1(2.1)	4(20.0)	
Surgeon, n(%)				
High experience	38(46.9)	28(58.3)	10(30.3)	< 0.05
Other	43(53.1)	20(41.7)	23(69.7)	

Table 2 Risk Recurence VVF

Variable	univariate	
	HR(95%CI)	P-value
Size group, n(%)		
< 10 mm	1	
≥ 10 mm	1.835(0.92-3.68)	0.087
Route of repair, n=76		
Transabdominal	1	
Transvaginal	2.413(1.09-5.35)	< 0.05
Laparoscopic	0.934(0.26-3.37)	0.919
Flap interposition, n=64		
Yes	1	
No	6.179(2.14-17.87)	< 0.05
Post-op UTI, n=68		
No	1	
Yes	3.685(1.22-11.16)	< 0.05
Surgeon		
High experience	1	
Other	2.107(1.00-4.44)	0.050

Results

- In the total of 81 patients, 48 patients were success repair, 33 patients were recurrence VVF
- The statistically significant factor of recurrence VVF including flap interposition ($p < 0.001$), post operative UTI ($p < 0.05$), route of repair ($p < 0.05$), surgeon ($p < 0.05$) and hospital ($p < 0.001$)
- Univariate analysis determined that the recurrence of VVF was significantly related to flap interposition used (6-fold recurrence risk for not being used flap interposition), post op UTI (3-fold recurrence risk), route of repair (2-fold recurrence risk for transvaginal approach), experience of surgeon (2-fold recurrence risk for less experience surgeon), hospital (6-fold recurrence risk for other hospital)
- In the other hand, Age, BMI, cause, size, number and location of VVF were not significant recurrence risk factor.

- In our series the flap interposition was a protective factor for the recurrence (6-fold recurrence risk for not being used flap interposition)
- We recommend in all patients with multiple risk factors for recurrence, the flap interposition used was improve the outcome
- Post operative management is another important thing because in our study post operative UTI was the recurrence risk factor (3-fold recurrence risk), the maintenance of a dry and uninfected suture line are importance.

Conclusion

- VVF are the most encountered urinary tract fistula, and have been treated by variety of operative approach
- Flap interposition used, post operative UTI, route of repair , experience of surgeon and hospital of repair VVF were factor significant in determining outcome of successful VVF repair

Acknowledgements

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