

## FACTORS INFLUENCING REPAIR OUTCOMES OF VESICOVAGINAL FISTULA: A RETROSPECTIVE REVIEW OF 139 PROCEDURES

### Hypothesis / aims of study

Vesicovaginal fistula (VVF) is a distressing disorder in women. We aimed to report the outcomes of patients undergoing vesicovaginal fistula (VVF) repair to identify prognostic factors.

### Study design, materials and methods

Patients who underwent VVF repair between January 2009 and Oct 2015 were reviewed. Primary outcome was fistula closure at 3 months. Potential prognostic factors included patient and fistula characteristics, and surgical approach.

### Results

Results: A total of 123 patients and 139 procedures of VVF repair were reviewed. 69% of fistulas were caused by hysterectomy and 23.0% fistulas resulted from obstructed labor. The overall success rate was 85.6%. There were no significant differences in age ( $p=0.476$ ), etiology ( $p=0.900$ ), fistula duration ( $p=0.491$ ) and number of repairs ( $p=0.509$ ) between success and fail group. There was a trend that the success rate in small fistulas was higher (88.2% vs 75.9%,  $p = 0.087$ ). Moderate or severe perifistula fibrosis and multiple fistula were associated with failure in repair of fistula (70.8% vs 93.4%,  $p < 0.001$ ; 62.5% vs 88.6%,  $p = 0.005$ ). No distinct difference was seen in success rate of vaginal and abdominal approaches (86.0% vs 85.0%,  $p = 0.800$ ). Logistic regression analysis identified fistula number ( $p=0.003$ ) and perifistula fibrosis ( $p= 0.002$ ) as two independent prognostic factors. Medium/large fistulas were 3.2 times more likely to fail in repair than small fistulas (odds ratio 3.2, 95% confidential interval 0.95-10.6,  $p = 0.061$ ).

### Interpretation of results

All procedures were performed through vaginal or abdominal approach. Of 139 procedures, 114 underwent surgical repairs through vaginal approach while the remainder through abdominal approach (Table 3). Obviously, the use of abdominal approach was decreasing over the years ( $p < 0.001$ ).

### Concluding message

Fistula number and perifistula fibrosis were two independent prognostic factors for fistula repair. Unsuccessful closure was more likely in medium/large VVF.

### Disclosures

**Funding:** This work was supported by Grant No. 31170907, No. 31370951, No. 81470927 and No. 81300579 from the National Natural Science Foundation of China, Grant No. JH2015017 from the Applied Key Project of Si Chuan Province, Grant No. JH2014053 from the Foundation for Reserve Candidates of Science and Technology leader of Si Chuan Province and Grant No. 20110181110028 from the Ph.D. Programs Foundation of Ministry of Education of China. **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of West China Hospital of Sichuan University **Helsinki:** Yes **Informed Consent:** Yes