

West Africa Fistula Foundation staging classification of Obstetrical Fistula

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ABSTRACT

This article will explain the West Africa Fistula Foundation (WAFF) Vesico Vaginal Fistula (VVF) staging system to provide evidence based outcomes and to improve care to women in developing countries. We also present preliminary outcome based data in addition to explaining our general philosophy of care.

Introduction

Over the past few years, The West Africa Fistula Foundation (WAFF) has been successfully creating a simple staging system (Table 1) for vesicovaginal fistulae (VVF) for multiple reasons. Firstly, to allow patients to be informed of the likelihood of a successful surgery. Secondly, the care provided to our patients has been greatly facilitated by the WAFF staging system. Our entire health care team universally understands the staging system, and this common language allows for optimal treatment to be provided at all levels of the fistula repair process. Then there is the fact that during recruitment, women in rural areas can be diagnosed on site with a simple bimanual examination, and expectations of a repair can then be provided by a dedicated nurse. Also preoperatively, surgical scheduling can be tailored to provide each woman with appropriate operative

timing whilst postoperatively, the nursing staff already knows the severity of their patients repair and the probable length of catheterization. Most importantly, the WAFF staging system has been extremely helpful to predict postoperative outcomes based on preoperative fistula staging.

We believe that a staging system such as WAFF should be adopted by hospitals that perform fistula repairs. By utilizing such a system, less experienced surgeons could determine which fistulas should be referred to a more experienced surgeon. And even though the more challenging cases should be referred, the less experienced surgeon could accompany the patient to learn how to perform the more difficult techniques. A collegial unification is very important considering that the first operative intervention offers the best chance at continence for all patients.

Table 1: The WAFF VVF Staging System

Stage I	
Main Criteria: Intact urethra with a mid-vaginal fistula or juxtacervical fistula	
<ul style="list-style-type: none"> IA. 1 centimeter or less fistula IB. 1-3 centimeter fistula 	
Stage II	
Main Criteria: Proximal urethral damage with a mid-vaginal ,juxtaurethral or juxtacervical fistula	
<ul style="list-style-type: none"> IIA. Juxtaurethral damage (some proximal damage to the urethra) <ul style="list-style-type: none"> -Minimal scarring of vagina -Fistula 5 centimeters or less IIB. Juxtaurethral damage (a blind urethra)and/or <ul style="list-style-type: none"> -Fistula greater than 5 centimeters 	
Stage III	
<ul style="list-style-type: none"> IIIA. Urethral length less than 2.5 centimeters and/or moderate scarring IIIB. Circumferential fistula or -a blind urethra with moderate to severe scarring 	
Stage IV	
<ul style="list-style-type: none"> -Complete destruction or loss of urethra -Complete vaginal stenosis -Very severe scarring 	
*Scarring:	
<ul style="list-style-type: none"> Minimal-less than one-fourth of the vaginal capacity is compromised Moderate – one-fourth-one half of the vaginal capacity is compromised Severe- greater than one-half of the entire vaginal capacity is compromised 	
OTHER	
<ul style="list-style-type: none"> -Exceptions to above staging: <ul style="list-style-type: none"> Vesico-uterine fistula Vesico-cervical fistula Vesico-cutaneous fistula Uretero-vaginal fistula 	
*Increase the Stage by one Entire Stage when you have:	
<ul style="list-style-type: none"> -Multiple fistulas (> 1) -Previous attempted surgical repair 	

Results

Our preliminary postoperative data (Table 2) demonstrated the expected trend of stage IIIa and stage IIIb having a lower success rate than Stage I or II fistulas. We define a successful outcome as being dry one month after surgery.

Table 2: The WAFF VVF Staging System postoperative data

Stage	No. of patients	No. dry	No. wet	Success rate	% of total patients
Ia	20	20*	0	100%	10.52%
Ib	6	6	0	100%	3.15%
IIa	29	28	1	96.55	15.26%
IIb	20	20	0	100%	10.52%
IIIa	64	59	5	90.7%	33.68%
IIIb	16	12	4	75%	8.42%
IV	26	Surgery not performed			13.68%
Other	9	9**	0	100%	4.73%
Total	190				

* 4 of these patients were cured with long-term catheterization and without surgery.

** Of these 9 patients one had a vesico-cutaneous fistula, 5-vesico-cervical fistulae and 3-uretero-vaginal fistula

Discussion

In regards to the staging system, multiple factors beyond sheer size need to be accounted for when assessing a patient. Obviously, the urethral integrity is very vital to urinary continence once the fistula tract has been closed. Our staging includes the possible field effect of damage done to the urethra in helping to predict surgical outcomes (i.e. continence) and not simply the closure of a fistula. Our data suggests that stage I, II and Other fistulas are easier to repair while stage III fistulas present more of a challenge because of less urethral length, more scarring and previous surgical attempts which appropriately upstages patients. Unfortunately, Stage IV fistulas usually require urinary diversion, but with staging we can counsel patients appropriately and not attempt an unnecessary futile transvaginal fistula repair. We also include exceptions in the staging system since anatomic locations beyond the bladder and vagina warrant special considerations in regards to surgical planning and postoperative care.

In addition to the WAFF staging system, another factor we have found to be extremely important in successful closure and healing of the fistula involves the nutritional status at the time of the first operative procedure. A well nourished patient increases the likelihood of post operative continence. Our prospective database of patients all received regular feedings three times a day. Our ward diet emphasized serving generous meals with high protein content in addition to iron and vitamin supplements.

In regards to our philosophy of care, fistula patients routinely present malnourished and ill. As surgical literature has proven for decades a successful outcome is influenced by the nutritional status and underlying medical condition of the patient. We have found many patients malnourished and suffering from malaria, anemia, parasitic and other chronic diseases. We have found it to be critical to address these bodily needs. In addition to medical care, we build a supportive community for the women. We attempt to optimize their bodies and minds. A school has been set up in the ward that provides literacy and skills training. Women learn how to read, write, count and sew in our schoolroom. All members of the WAFF staff work

together to improve the outlook these women have through positive interactions and constant attention.

Conclusion

The WAFF staging system has been easily adopted by all levels of our staff and like cancer staging, a universal language system improves patient care at all levels. The benefits of such a staging system are numerous including importantly helping less experienced surgeons define their limits and improve patient care since the first attempt at repair will always be the best.

In the near future, we anticipate providing the detailed results of our sizeable prospective database including RVFs (recto-vaginal fistula's) to display quantitative results which emphasize the success of the WAFF staging system. Creating such early prognostic indications create success during all care stages for our patients. Hopefully, the WAFF staging system finds adoption by other fistula care providers to improve the treatment of these women.