12 Assessment of Results

Any surgeon wants to know his or her results, but accurate documentation is beset with a number of difficulties:

- **Inoperable cases**. Specialists vary in their estimates of the percentage that they see as inoperable from the start, ranging from less than 1% to around 5%. Even experienced surgeons can occasionally start a case and find it impossible to finish. Clearly, if these are not included in an analysis, then comparison between centres or individuals is not valid.
- **Area of work**. Anyone starting fistula repairs in a new location will have the benefit of virgin territory, with a good proportion of easier cases. As visits or work continue, the percentage of easy cases drops dramatically as re-repairs and cases of stress incontinence dominate the picture. Also, after surgeons become established in their localities, they will be referred more and more difficult and failed cases, while surgeons whom they have trained handle the easy cases. So the results for the same surgeon may change with time.
- **Incomplete follow-up**. It is ideal practice to perform a dye test before removing a catheter to assess the closure rate. If this is not done for all patients, a dye test can be performed just on those who are wet after catheter removal, in order to distinguish between breakdown and stress (after excluding urinary retention). Some late breakdowns occur after the patient has gone home and some cases of stress cure with time. A follow up appointment is necessary to be sure of the outcome, however, this is often difficult in resource-poor areas.

Recording Results

A key step for any surgeon, whatever his or her experience, is to record results for all new cases and re-repairs separately. Cases that are not done because of difficulty or impossibility or that are referred on elsewhere, should also be recorded dilligently.

We record details of our patients on Excel databases. A balance has to be struck between, collecting every scrap of data just because it might be of future interest and, missing data that will be useful for prospective analysis. In setting questions, it is important to have 'yes' or 'no' answers or numerical data as in the Goh and Waaldijk classifications. The use of purely descriptive terms for each patient's fistula will not help in the analysis of results. However, there must be a place for describing the operation or other unusual features, as each patient and her fistula are unique.

In assessing results, there are many variables, and one must be clear about definitions:

- **Complete cure**. To be completely cured, the patient must be totally continent and be able to bear children. There are only a handful of studies on fertility after fistula repair. When combining the data it was found that only 20% had successful pregnancies after fistula repair. Reproductive capacity is reduced, the leading causes being amenorrhoea, vaginal stenosis (leading to apaerunia and/ or closure of the vagina or cervical os), and cervical incompetence

as many patients have damaged cervixes. There are of course many patients who have had a caesarean hysterectomy at the time of fistula occurrence and weren't informed.

- **Acceptable cure**. This is to be dry, not leaking on coughing or strain and dry through the night, voiding normally.
- **Urinary retention with overflow incontinence**, in which the patient is invariably dry with self catheterising.
- **Failure**. This is a breakdown of the repair, confirmed by the dye test or stress incontinence, which is so bad that the patient feels no improvement on the pre-operative state.
- **Stress incontinence and other urethral incontinence**. This occurs in varying degrees and has to be quantified descriptively—an objective assessment is not easy in a resource-poor location. (See Chapter 9)

Surgeons working in permanent fistula centres can be much more objective about their results, as they are there to see the early post-operative results themselves, or at least have them accurately assessed by experienced staff.

Throughout Africa, many fistulae are repaired by surgeons who visit regularly to attend fistula camps. They often have to leave by the time the patient is discharged, and therefore have to rely on later reports from remaining staff, who may for various reasons omit a dye test. A practical method of documentation in this situation is as follows:

- **Cured**. The patient has been seen at least 3 months after her operation and is completely continent.
- **Presumed cured**. The patient was said by the staff to be dry on discharge and has not returned for follow up.
- **Failure**:
  - The patient became wet in the post-operative period, and a breakdown was confirmed by a dye test.
  - The patient was wet on discharge, although it was not known if this was a breakdown or due to stress incontinence. A few of the latter cases may improve and not return for follow up. In our practice, we suspect that the majority who are seriously wet do return. We are then able to decide if they have stress or a broken repair. If they are wet on discharge from the hospital they need to be encouraged to return for further management. Without this, some patients may think that they can't be cured and nothing more can be done for them. Some seek health care elsewhere and are lost to follow up.
- **Stress incontinence**. The patient has a negative dye test, but is clearly wet. Further follow up is needed to decide if this rates as:
  - *Total stress incontinence*. The patient feels that she is no better, and she does not void any urine.
  - *Partial stress incontinence*. She can be dry at times, for example she is dry sleeping at night and on sitting, but becomes wet on walking or standing and does void urine spontaneously. (See Chapter 9—Immediate Assessment for a simple grading system)

- **Urinary retention**. These patients are usually dry self catheterising.

There will be a few results that do not comfortably fit these categories, for example patients who have strictures requiring dilatation.

We have emphasised that every effort should be made to follow up with patients after repair. In addition to enquiring about continence, one should record any changes in menstrual function, sexual function and social integration.

Mortality Rates

Fistula repair is major surgery, and it is not surprising that there will be cases of morbidity and mortality. Mortality of the order of 1 in 500 may be expected. The majority of these deaths will be due to unrelated medical problems. Causes specific to the surgery include anaesthetic mishaps, water intoxication and pulmonary embolism. Occasionally, deaths occur for which no clear explanation can be given.

Brian Hancock has so far lost one case from an overwhelming chest infection, and I have lost two patients in the post-operative period, one from cerebral malaria and one from a suspected cardiac cause.