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USE OF A LOW-PRESSURE COLONIC POUCH (MAINZ II) URINARY DIVERSION FOR IRREPARABLE VESICO-VAGINAL FISTULA AND BLADDER EXTROPHY IN ERITREA

Hypothesis / aims of study
To describe our experience in the East African country of Eritrea using the low-pressure sigmoid Mainz II (1) pouch in patients with irreparable obstetric fistula.

Study design, materials and methods
Since February 2004, a fistula treatment program developed by the Eritrean Ministry of Health, the Eritrean Women's Project and the United Nations Population Fund (UNFPA) has treated over 600 cases of obstetric fistula. During this time period, we have performed 50 Mainz II pouches (48 cases of irreparable fistula and 2 cases of bladder extrophy). On our most recent trip (February 2012), we reviewed the charts of all 50 diversion patients, focusing on the occurrence of known long-term complications of urinary diversion: infections, renal function, and metabolic acidosis.

Results
All 50 patients were discharged to their families with a median length of stay of 20 days (range 9-166). 39 (78%) of patients had at least 1 follow-up visit six months or greater from surgery and 46 (92%) patients have had at least verbal follow-up. Four patients were lost to follow-up. Median follow-up was 64 months and mean follow-up was 56 months. Severe urethral damage combined with scarring was present in over 90% of fistula cases. Over 60 % of patients had previous attempts at primary closure. Immediate post-operative complications (primarily fever that resolved with intravenous antibiotics) were seen in 25% of patients. Approximately one-third of patients report nighttime incontinence. All patients had laboratory evidence of acidosis. Four women were able to have successful pregnancies after diversion; two infants were delivered by cesarean section and two by vaginal delivery. One woman had a full term stillbirth and one woman had a miscarriage. None of the pregnant women experienced a change in their bowel/urinary continence after pregnancy. Seven patients have died (14%) 2-5 years from diversion: 3 from sepsis or renal failure attributable to the diversion, 3 from unrelated causes and 1 from an unknown cause.

Interpretation of results
We have successfully performed urinary diversion using the Mainz II sigmoid pouch in 50 patients with manageable postoperative morbidity no perioperative mortality. Acidosis and nighttime incontinence are common long-term complications.

Concluding message
Patients with irreparable obstetric fistula present a unique clinical and logistical challenge in developing nations. The immediate and long-term risks of urinary diversion with the Mainz II pouch must be balanced not only against the medical risks of an untreated obstetric fistula but also the societal isolation that accompanies it (2,3). We believe in the carefully selected patient that the Mainz II pouch offers a balanced solution to this difficult problem. Long-term surveillance with local collaboration is essential for the success of the Eritrean program.

References
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Disclosures
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