

Using video-based training of surgical procedures can impact low resource settings

Anastasia Martin¹, Katy Kuhrt², Lusako Mwaikasu³, Andrew Shennan²

1.University hospital Sussex, Worthing, United Kingdom
2.Department of Women's Health, King's College London, St Thomas' Hospital, London, United Kingdom
3.Department of Obstetrics and Gynaecology, Royal Hospitals, Mwanza, Tanzania

Introduction

More than 95% of perinatal morbidities and mortalities occur in low-resource settings¹. Dissemination and training of novel interventions in those settings are challenging, which are major barriers to reducing maternal morbidities and mortalities.

Recently, we developed an **educational video** describing transabdominal cerclage (TAC) insertion² and reflected on its potential impact in low-resource settings, by presenting 2 examples where it informed the care of patients in Tanzania, with positive outcomes.

Cases

The video was viewed by a consultant obstetrician in Mwanza, Tanzania. He was experienced in performing vaginal cerclage but **had never previously inserted a TAC**. After learning the procedure through the video, the obstetrician performed the surgical procedure in 2 cases.

In both cases transabdominal cerclage (TAC) was inserted imitating the surgical procedure observed via the video.

No additional practice or training was done.

Reflections

This personal perspective is an example of how video-based training can be used to increase access to surgical skills globally, with improved patient outcomes.

Clinically effective

TACs are an effective intervention despite challenges intrinsic to low resource settings

Educational

In both cases, inserting a TAC, an intervention the surgeon learned through studying a video, led to a successful pregnancy.

Cost-effective

The use of a video to demonstrate a surgical technique is a useful and cost-effective training method

Accessible

Improving training in novel surgical interventions through video tutorials can reduce poor pregnancy outcomes in LMICs where adequate training is inaccessible

Case 1

29-year-old woman, gravida 9 para 0⁺⁹

6x late miscarriages (16+0 to 23+6 gestation)

2x failed rescue cerclages

1x failed high cervical cerclage

TAC INSERTED

Discharged 2 days following procedure

10th pregnancy events

- Normal booking and anomaly scan
- 24 weeks gestation: cervical length 32mm
- No bed rest
- 35 weeks gestation: lower abdominal pain and spotting → hospitalised
- **36 weeks: elective caesarean delivery**
- Neonate weight: 2.2kg
- APGAR: 8 and 10 (at 1 and 5 minutes)
- Discharged from hospital on day 5

Case 2

37-year-old woman, gravida 9 para 1⁺⁸

3x second-trimester miscarriages

1x Elective cesarean delivery with live baby

5x failed cerclages

TAC INSERTED

10th pregnancy events

- **Delivered at 37 weeks gestation with caesarean delivery**
- Neonate weight: 3kg
- APGAR: 8, 10 (at 1 and 5 minutes)

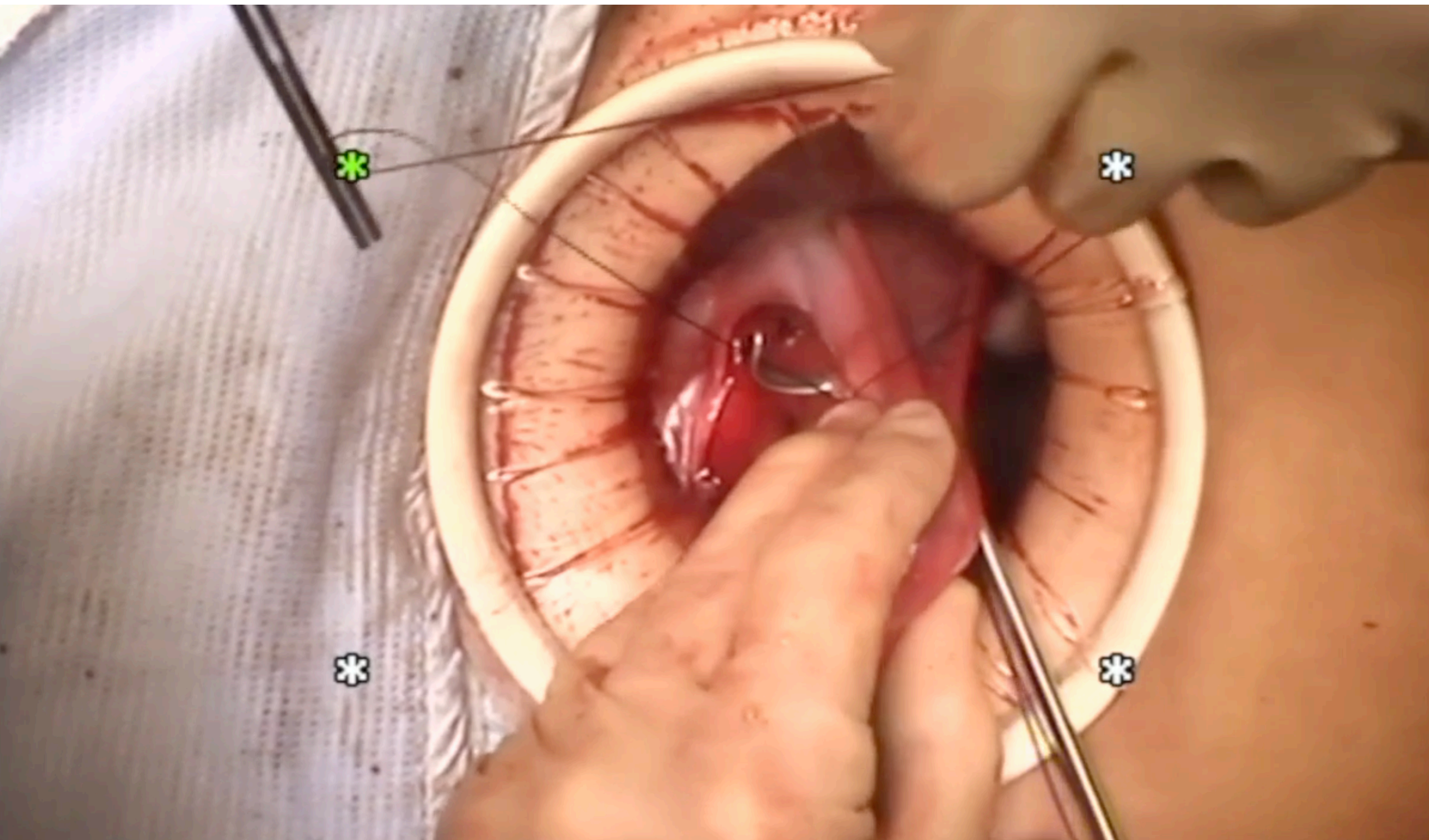


Figure 1: Still image from the 8-minute training video of transabdominal cerclage insertion²

References

*Please note this personal perspective piece was published since time of acceptance to the congress

