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THE ONYEKA HAEMOSTATIC SUTURE TECHNIQUE: A NOVEL TECHNIQUE OF VAGINAL AND PERINEAL SKIN CLOSURE THAT FACILITATES PELVIC FLOOR REPAIR AS A DAY-CASE PROCEDURE

Hypothesis / aims of study

To demonstrate that pelvic floor repair can be safely and successfully performed as a day- case procedure using the Onyeka haemostatic suture technique.

Study design, materials and methods

This was a prospective case series performed between June 2008 to Oct 2009.
Inclusion criteria were (1) Women with grades 2-4 prolapse of the vaginal wall requiring surgery, (2) Willingness to accept general anaesthetic, (3) Unimpaired cognitive and functional status, (4) Willingness to be discharged on the same day, (5) No requirement for concomitant surgery such as hysterectomy, midurethral slings or vault suspension procedures.
At the time of surgery the bladder was emptied if the procedure requires a cystocele repair. The general anaesthetic was augmented by infiltration with local anaesthetic (20-40mls of 0.25% bupivacaine solution mixed with 1:200 000 adrenalin).
The initial operative technique involved a longitudinal incision on the vaginal skin to access the prolapsing organ. The prolapsing organ is then separated from the vaginal skin by blunt and sharp dissection. Following reduction and plication of the prolapsing organ with patients own tissues, the resulting excess skin was trimmed (Fig 1, 2). The Onyeka closure technique was then applied to the vaginal skin using a 2/0 vicryl stitch to achieve haemostatic closure without contracting the vagina-as described below: Step 1- The first suture is applied no more than 1.5cm above the apex of the vaginal incision. This was tied using three reef knots taking care that both ends of the stitch are equal in length after tying the knots. (Fig 3)
Step 2-The needle end of the stitch is now used to pass the needle through both leaves of the vaginal skin incision and secured with 2 reef knots. The knot is placed parallel to the incision line and below the previous knot on the same side separated by a gap of no more than 1.5cm. (Fig 4, 5).
Step 3- Similar sutures are applied along the length of the vaginal incision. (Fig 6)
Step 4-The final stitch applied below the proximal end of the incision and secured with three reef knots in a similar manner as in the first step. The redundant ends of the stitch are now cut (Fig 7).
After each procedure 300 ml of saline was instilled in the bladder with a cystoscope to reduce post operative time interval to voiding.
Vaginal pack or bladder catheter was not used. Patients were discharged home when the following criteria were met:(1): full recovery from general anaesthetic, (2): no evidence of vaginal bleeding, (3) establishment of satisfactory voiding, (4) adequate pain relief, (5) patient accepts to be discharged on the same day.
They were discharged home on analgesics and laxatives (if repair involved rectocele) and were given access to an emergency gynaecology clinic if needed prior to their scheduled 12-weeks follow-up appointment.

Results

A total of 27 consecutive cases were operated on during the study period between June 08 and Oct 09. All the cases in this series were performed by the same surgeon, (B.A Onyeka). These cases included 18 anterior, 7 posterior and 2 combined anterior and posterior repairs. Seven of the nine posterior repairs had additional perineal repair. More than 70% of patients met the entry criteria for day-case pelvic floor repair in this surgeons practice during this period. No intraoperative complications were observed. Operating time per case ranged between 20-55 minutes. Average estimated blood loss was <100 ml.
Mean age of patients was 49 years (range 32-71).
Mean duration of hospital stay was 4.6 hrs with a range between 2 to 8 hrs
Same day discharge was possible in all 27 cases (100%) cases. All the patients (27/27=100%) were satisfied that the procedure was done as day-case and would recommend it as day-case procedure to others.
Delayed complications included 2 return to Hospital (2/27=7.4%). The first returned with post-operative pain and the other with constipation. They both had posterior repair.
There were no readmissions for bleeding and no problems were identified during the 12 weeks follow up.

Interpretation of results

The Onyeka closure technique ensures adequate haemostasis following pelvic floor repair. This eliminates the need for vaginal packing, bladder catheterisation, admission to hospital and makes discharging patients safe.

Concluding message

Pelvic floor repair can be safely and successfully performed in selected cases as day-case procedure using the Onyeka closure technique. To our knowledge this is the first series either presented or reported in the literature, demonstrating that pelvic floor repair can be safely and successfully done as a day case procedure. In our unit, we now perform pelvic floor repair routinely as a day-case procedure using this technique.

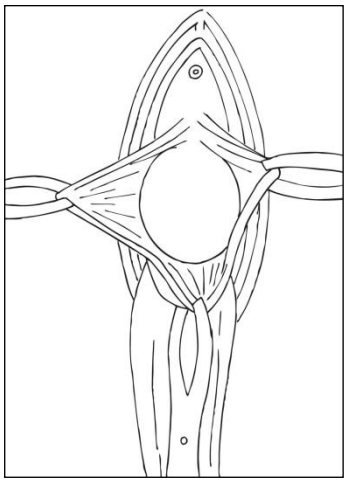

Fig 1

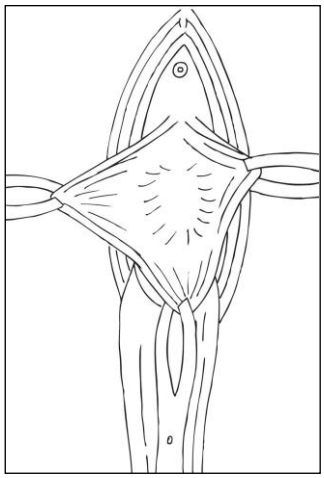

Fig 2

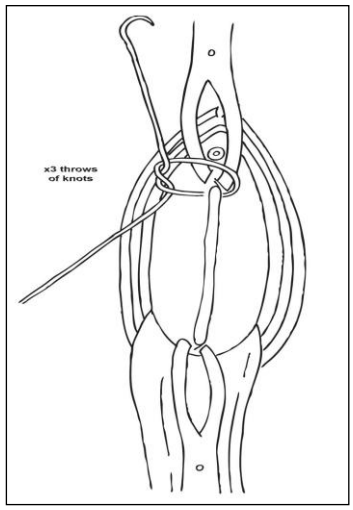

Fig3

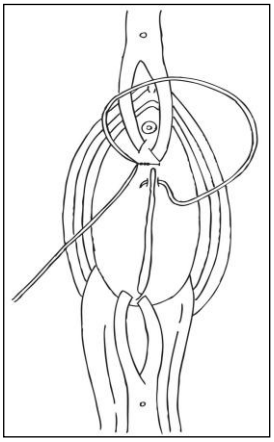

Fig 4

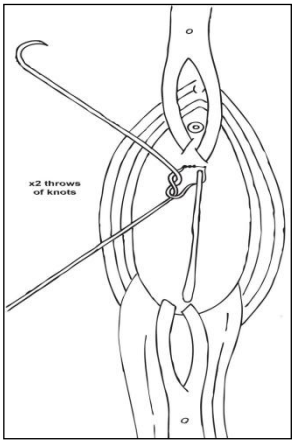

Fig 5

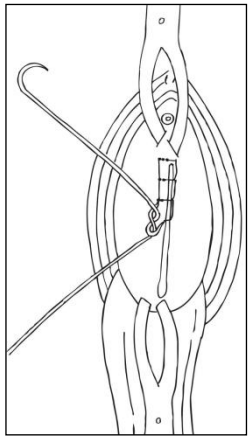

Fig 6

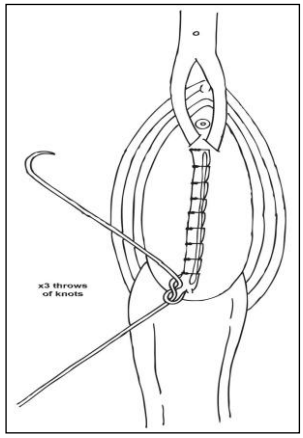

Fig 7

Specify source of funding or grant	**No funding or grant was needed**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**This was a new way of providing an existing service,the patients were not randomised.The details were checked with the hospital's clinical governance committee and it was felt that this case series came under the provisio of service provision hence ethical approval was not needed**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**