

## **RANDOMIZED TRIAL OF OVERLAPPING VERSUS END-TO-END REPAIR OF THIRD OR FOURTH DEGREE EAS TEARS: THREE YEAR FOLLOW-UP OF ANAL INCONTINENCE SYMPTOMS.**

### Hypothesis / aims of study

Anal incontinence is a problem for women who sustain a 3<sup>rd</sup> or 4<sup>th</sup> degree tear of the external anal sphincter (EAS) at delivery. Six-month follow-up found that flatal incontinence rates were higher in women who underwent an overlapping repair.(1) In this study we report the results of three-year follow-up.

### Study design, materials and methods

Primiparous women sustaining a complete 3<sup>rd</sup> or a 4<sup>th</sup> degree tear of the perineum were randomized to a primary sphincter repair using either an end-to-end or an overlapping surgical technique using 3-0 polyglyconate (Maxon). Outcome measures at 1,2 and 3 years included rates of flatal and fecal incontinence and quality of life scores.

### Results

At one year follow-up women who underwent end-to-end repair had significantly lower rates of flatal incontinence, 31% vs 56%, difference=25%, CI: (6%, 43%), p=.012. At 2 and 3 years the differences were not statistically significant. Regarding fecal incontinence at one year, women with end-to-end repair had lower rates but the difference was not statistically significant: 7% vs 16%, difference=9%, CI: (-4%, 21%), p= .17. At 2 and 3 years the difference had disappeared.

### Interpretation of results

End-to-end repair of 3<sup>rd</sup> or 4<sup>th</sup> degree obstetrical anal sphincter tears is associated with significantly lower rates of flatal incontinence at one year when compared to overlapping repair. Fecal incontinence rates were lower in this group without reaching statistical significance. At 2 and 3 years the anal incontinence rates are not significantly different.

### Concluding message

The results of this report confound previous studies that found either a benefit to an overlapping repair or no difference in the two procedures. Our study finds that the overlapping repair is more likely to result in anal incontinence than the more traditional end-to-end repair.

### References

1. Farrell SA, Gilmour D, Turnbull GK, Schmidt MH, Baskett TF, Flowerdew G, Fanning CA. *Obstet Gynecol.* 2010 Jul;116(1):16-24.

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<b><i>Is this a clinical trial?</i></b>	<b>Yes</b>
<b><i>Is this study registered in a public clinical trials registry?</i></b>	<b>Yes</b>
<b><i>Specify Name of Public Registry, Registration Number</i></b>	<b>ISRCTN Register, isrctn.org, ISRCTN04149919.</b>
<b><i>Is this a Randomised Controlled Trial (RCT)?</i></b>	<b>Yes</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>IWK Health Center Ethics Committee</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>