Hypothesis / aims of study
10% of women with obstetric anal sphincter injury (OASI) experience faecal urgency or incontinence symptoms. These women often have caesarean sections with subsequent pregnancies. We aimed to determine predictive factors for bothersome anal symptoms in women with OASI to look at preventive measures.

Study design, materials and methods
A proforma was developed to be completed by the accoucheur at the time that an OASI was detected. The data collected described events leading up to the OASI and grading of the tear. Data including length of pushing (compared to length of second stage), and position of head at birth, were included. All women with OASI were seen in a dedicated perineal clinic by eight weeks post partum and underwent anorectal physiology (ARP) testing at six months postpartum. Symptoms of faecal incontinence at the first visit (6-8 weeks post partum) defined as any score above zero using a Wexner Score. Furthermore women were asked if they experienced any faecal urgency. Only primiparous women were included in the analysis.

Results
198 primiparous presented with OASI. At 6-8 weeks post partum 26.3% were symptomatic. Univariate analysis suggested women who pushed for more than 60 minutes were more likely to have symptoms (P=0.003), as were women with higher grade tears (grade 3b,c,4) (P=.047). Instrumental delivery was associated with higher grade tears (P=.011), but using multivariate analysis, larger tears were more likely when pushing for more than 60 minutes was combined with instrumental delivery (P=.008). 52% of women analysed were of Asian in origin compared to 21% being Asian in the demographic of pregnant women at the hospital. Episiotomy was not associated with symptoms.

Interpretation of results
Women with symptoms after OASI are more likely to have pushed for greater than 60 minutes. This differs to second stage length. Instrumental delivery in women with prolonged pushing, results in a higher incidence of grade 3b,c and 4 tears.

Concluding message
We theorise that a long second stage and instrumental delivery are surrogates for a tight pelvic fit leading to greater perineal injury to achieve a vaginal birth. We require more research to predict a tight fit prior to women presenting in this predicament during labour.

Specify source of funding or grant
No external funding

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 is an audit based on data collected on hospital forms and at a clinic.

Was the Declaration of Helsinki followed?
Yes

Was informed consent obtained from the patients?
No