

For both groups the next category was RC6 (primiparous breech). In 2007 1/77 (1%) were RC6 and in 2012 6/86 (7%) were RC6 ( $p = N/S$ )

**Conclusions** In Tayside the main indication for CS is previous CS. Promoting vaginal birth after caesarean (VBAC) might halt the rise in CS. We have introduced an information leaflet that promotes VBAC. There are a significant number of primiparous women having CS prior to the onset of labour or following induction of labour. Effective counselling and decision making will ensure that these women are managed appropriately.

#### REFERENCE

Robson's classification of Caesarean Section.

#### PL.84 SHORT-TERM CULTURE OF HUMAN ECTO-CERVICAL EPITHELIAL CELLS FOR GENOMIC, PROTEOMIC AND FUNCTIONAL STUDIES

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**Background** Understanding cell physiology is limited by reliance on tumour-derived immortalised cell lines. Primary cell culture models may offer more relevant mechanistic insight into cell physiology but are often difficult to establish and maintain.

**Aims** We sought to develop an optimal method for the isolation and short-term culture of Human primary Ecto-Cervical Epithelial Cells (HECECs).

**Methods and Material** Fresh ecto-cervical tissues were obtained at hysterectomy and epithelia isolated and cultured (using MEM D-Valine media to prevent fibroblast proliferation) using three explants methods: i) tiny fragments of epithelium; ii) dissociated cells cultured after digestion using Collagenase IV and trypsin; and iii) digested tissue clumps. The epithelial phenotype of cultured cells was verified by double immunofluorescence sequential staining to detect cytokeratin, specific antigen for epithelial cells. The expression of oestrogen ( $ER\alpha$ ,  $ER\beta$ ) and progesterone receptors ( $mPR\alpha$ ,  $mPR\beta$ ,  $PR\gamma$  and  $nPRA\&B$ ) genes were investigated by RT-PCR. Flow cytometry was employed to detect TLR2 and TLR4, receptor targets for our proposed of pattern recognition in the cervix.

**Results** Cultures were successfully established using all three methods but cell growth was best from digested tissue clumps, which was employed for subsequent experiments. Primary cells were sub-cultured at least twice. Exclusion of fibroblasts from cultures was confirmed by absence of staining to CD90. We confirmed the expression of all ER and PR genes, as well as TLR2, TLR4 in HECECs.

**Conclusion** HECECs cultured from explants of digested tissue clumps, employing our protocol, yield pure epithelial cell populations, uncontaminated by stromal fibroblasts, suitable for molecular investigations.

#### PL.85 UMBILICAL VEIN INJECTION IN THE MANAGEMENT OF RETAINED PLACENTA-CLOSING THE AUDIT LOOP

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**Background** NICE intrapartum guidelines introduced in 2007 recommended use of umbilical vein Oxytocin injection for management of retained placenta and discredited the use of intravenous Oxytocin infusion (with the exception of its association with postpartum haemorrhage). A local audit in 2009 assessing practise of management of retained placenta revealed high rates of intravenous Oxytocin use and lower rates of intra-umbilical Oxytocin injection. This led to the introduction of local guidelines unified with NICE in 2012. We present the finding of re-audit to assess adherence to local guidelines in particular to the use of Oxytocin in the management of retained placenta.

**Method** The retrospective audit was carried out between 1 May 2012 and 31 August 2012 with 33 cases identified. Data was collected on patient demographics, rates of intravenous and umbilical vein Oxytocin injection use, amongst other parameters.

**Results** There was a reduction in use of intravenous Oxytocin infusion from 57% to 15% suggesting improved adherence to NICE guidance, but interestingly also showed a reduction in use of umbilical vein injection Oxytocin from 28% to 18%.

**Conclusion** This reduction in use of umbilical vein injection can be postulated to be due to the lack of robust evidence supporting this intervention. This is consistent with recent Cochrane review in 2011 that showed a non-statistically significant rate reduction of MROP with umbilical vein injection of Oxytocin. Additionally, newer WHO guidelines introduced in 2012 no longer advocate use of umbilical vein Oxytocin injection as first-line intervention for retained placenta.

#### PL.86 AUDIT OF PLACENTA ACCRETA AND ITS ANTENATAL IMAGING

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**Introduction** Maternal and fetal morbidity and mortality from placenta accreta are considerable and associated with high demands on health resources. Identifying women at risk antenatally can improve their management and reduce complications of this condition before delivery.

**Aim** To ascertain the usefulness of MRI scan in predicting the risk of placenta accreta.

**Method** An audit of maternity notes of women diagnosed with placenta praevia (PP) between Aug 09 and Aug 12. Women with PP and a previous caesarean were considered to be at greater risk of placenta accreta and were audited against the RCOG Greentop Guidelines for antenatal imaging with MRI.

**Results** Of the 72 cases identified, there were eight cases of anterior PP with a history of caesarean section. A further set of notes was of a woman with multiple caesarean sections and mainly posterior PP but the anterior edge of placenta overlying the anterior lower segment.

Of these nine 'high risk' women, 5 women had an MRI scan performed antenatally. In these cases there were 3 true negative MRI scans and 1 was a false negative, with evidence of placenta accreta at delivery. There was 1 reported false positive with no accreta at delivery.

**Discussion** The use of MRI scanning has not been used in all high risk cases. Where used, the predictive value has been 60%. Detailed analysis of features of abnormal placentation is required to improve the predictive value of MRI scans.

#### PL.87 WATER BIRTHS: A POSSIBLE RISK FACTOR FOR OBSTETRIC ANAL SPHINCTER INJURY

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**Background** Obstetric anal sphincter injury (OASI) has steadily increased worldwide in recent years. There has been controversy over water birth and the midwifery practise of "hands off" technique contributing to the increase of OASI injury. Chesterfield Hospital has a high water birth rate (12%) with a rising incidence of OASI. Hence this audit was carried out to identify the possible causes in this rise including water birth as a risk factor.

**Methods** This retrospective audit was performed over period of 13 months. The standard used was the expected incidence of OASI was 1% of all vaginal deliveries (RCOG green-top guidelines). The