Results A total of 58 babies were identified with 64 episodes of medical treatment for PDA with Indomethacin or Ibuprofen. Mean gestational age was 25.5 weeks and birth weight of 737.1 grams. Mean age at treatment was 26.7 weeks with pre-treatment PDA size of 1.5–6 mm and platelet count of 34–602×10^6/L.

Overall 73% (47/64) were treated with high dose and 11% (7/64) with low dose Indomethacin. 30% (19/64) PDA closed post-treatment, 62% (40/64) remained open.

Out of 19 successful closures 7 had initial platelet counts of >150 (Odds Ratio 0.31, 95% Confidence Interval) and out of 40 unsuccessful closures 26 had initial platelet counts of >150 (Odds Ratio 3.18, 95% Confidence Interval).

Conclusions Success of PDA closure after medical treatment was not related to the platelet counts in our study group.

1133 ANAENTAL VS POSTNATAL DETECTION OF MAJOR CONGENITAL HEART DISEASE IN A LARGE DISTRICT-GENERAL HOSPITAL IN UK; A SIX-YEAR REVIEW
doi:10.1136/archdischild-2012-302724.1133

Background and Aims Major congenital heart disease (CHD) is defined as CHD that needs operative or catheter based intervention in the first year of life. National institute of clinical excellence (NICE) in March 2008 recommended screening of outflow-tracts in addition to four-chamber view as part of the anomaly scan to improve CHD detection rates. We aimed to examine the clinical spectrum of antenatally and postnatally diagnosed major CHD in our institute pre- and post-introduction of NICE guideline.

Methods This is a retrospective review over six years from Jan 2006 to Dec 2011. Data was obtained from antenatal records, patient’s clinical and electronic records.

Results A total of 74 babies had major CHD diagnosed out of which 37 (50%) were diagnosed antenatally. Antenatal diagnosis pre- and post- NICE guidelines were 12/29 (41%) and 25/45 (55%) respectively as also termination of pregnancies with critical CHD doubled. Common postnatal presentations included cardiovascular collapse 4 (11%), cyanosis 8 (22%), murmurs 12 (32%), heart failure 5 (13.5%), faltering growth 5 (13.5%). 4 babies were critically ill and the PAR2-activating peptide SLIGRL-NH2 (0.1 to 10 µmol/L) increased between day 15 and 19 of incubation and was not affected by oxygen tension. SLIGRL-NH2 (≥10 µmol/L), evoked endothelium-dependent relaxation of the DA.

Conclusions PARs are functionally present in the chicken DA but not in other vascular tissues. Recent studies demonstrate that loss of platelet number or function leads to defective DA closure. We speculate that the role of platelets in DA closure might be partially mediated through the PAR-mediated vasoactive effects of thrombin.

1135 CORONARY ARTERY ANATOMY PRIOR TETRALOGY OF FALLOT SURGERY
doi:10.1136/archdischild-2012-302724.1135

Background and Aims Major congenital heart disease (CHD) is defined as CHD that needs operative or catheter based intervention in the first year of life. National institute of clinical excellence (NICE) in March 2008 recommended screening of outflow-tracts in addition to four-chamber view as part of the anomaly scan to improve CHD detection rates. We aimed to examine the clinical spectrum of antenatally and postnatally diagnosed major CHD in our institute pre- and post-introduction of NICE guideline.

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Conclusions PARs are functionally present in the chicken DA but not in other vascular tissues. Recent studies demonstrate that loss of platelet number or function leads to defective DA closure. We speculate that the role of platelets in DA closure might be partially mediated through the PAR-mediated vasoactive effects of thrombin.

1134 PROTEASE-ACTIVATED RECEPTOR (PAR)-MEDIATED CONTRACTION OF THE CHICKEN DUCTUS ARTERIOSUS
doi:10.1136/archdischild-2012-302724.1134

Background and Aims PARs belong to a family of G protein-coupled receptors, thus mediating the cellular effects of proteases. PAR1 and PAR2 have been shown to be involved in regulating vascular tone. Thrombin activates PAR1, whereas trypsin activates PAR1 and PAR2. Our aim was to evaluate the functional presence of PAR1 and PAR2 in the ductus arteriosus (DA).

Methods We investigated, using wire myography, the mechanical responses induced by thrombin (0.1 to 3 U/mL), trypsin (0.1 to 30 U/mL), the PAR1-activating peptide TFLLR-NH2 (1 to 100 µmol/L) and the PAR2-activating peptide SLIGRL-NH2 (0.1 to 10 µmol/L) in DA rings from 15-, 19-, and 21-d chicken embryos.

Results Thrombin, trypsin, and TFLLR-NH2, all caused concentration-dependent contraction of the pulmonary side of chicken DA. These contractions were not observed in the aortic side of the DA, in the femoral artery or in the pulmonary artery. Thrombin-, trypsin- and TFLLR-NH2-induced contractions were endothelium-independent but markedly impaired by the elimination of calcium from the extracellular medium. The contraction evoked by thrombin and trypsin increased between day 15 and 19 of incubation and was not affected by oxygen tension. SLIGRL-NH2 (≥10 µmol/L), evoked endothelium-dependent relaxation of the DA.

Conclusions PARs are functionally present in the chicken DA but not in other vascular tissues. Recent studies demonstrate that loss of platelet number or function leads to defective DA closure. We speculate that the role of platelets in DA closure might be partially mediated through the PAR-mediated vasoactive effects of thrombin.

1136 MORPHOHEMODYNAMIC MONITORING OF PULMONARY ARTERY IN PREMATURE INFANTS
doi:10.1136/archdischild-2012-302724.1136

Background and Aims Major congenital heart disease (CHD) is defined as CHD that needs operative or catheter based intervention in the first year of life. National institute of clinical excellence (NICE) in March 2008 recommended screening of outflow-tracts in addition to four-chamber view as part of the anomaly scan to improve CHD detection rates. We aimed to examine the clinical spectrum of antenatally and postnatally diagnosed major CHD in our institute pre- and post-introduction of NICE guideline.

Methods This is a retrospective review over six years from Jan 2006 to Dec 2011. Data was obtained from antenatal records, patient’s clinical and electronic records.

Results A total of 74 babies had major CHD diagnosed out of which 37 (50%) were diagnosed antenatally. Antenatal diagnosis pre- and post- NICE guidelines were 12/29 (41%) and 25/45 (55%) respectively as also termination of pregnancies with critical CHD doubled. Common postnatal presentations included cardiovascular collapse 4 (11%), cyanosis 8 (22%), murmurs 12 (32%), heart failure 5 (13.5%), faltering growth 5 (13.5%). 4 babies were critically ill and the PAR2-activating peptide SLIGRL-NH2 (0.1 to 10 µmol/L) increased between day 15 and 19 of incubation and was not affected by oxygen tension. SLIGRL-NH2 (≥10 µmol/L), evoked endothelium-dependent relaxation of the DA.

Conclusions PARs are functionally present in the chicken DA but not in other vascular tissues. Recent studies demonstrate that loss of platelet number or function leads to defective DA closure. We speculate that the role of platelets in DA closure might be partially mediated through the PAR-mediated vasoactive effects of thrombin.