Physiological fetal circulation requires patency of the ductus arteriosus. As gestation proceeds, the sensitivity of the ductus to dilating prostaglandins diminishes. The sensitivity to constricting agents like PGE-synthetase inhibitors, present in many analgetics, however, increases. Fetuses affected by an antenatal constriction of the ductus arteriosus (DC) may present with different signs of cardiac failure including dilated right ventricle, tricuspid regurgitation and abnormal venous Doppler. We report on four cases with prenatal DC, presenting at 34, 35, 36 and 37 weeks of gestation. They were referred to fetal echocardiography because of abnormal routine echo scans with unexplained signs of right heart decompensation. Three patients were medicated during pregnancy with either aspirin (low dose), metamizole or ibuprofen. One patient did not take any drugs, especially no pain medication drug in pregnancy. Immediate delivery was performed in all cases. The neonates were in a good condition; echocardiography showed different degrees of right heart hypertrophy which disappeared in all infants by the age of 3 months except in case 2. Unexplained fetal right heart decompensation requires detailed echocardiographic evaluation of the ductus arteriosus and a sophisticated medical history with regard to analgesics. In contrast to ibuprofen and high-dose aspirin, metamizole and low-dose aspirin have not yet
been reported as possible agents constricting the fetal arterial duct. In any suspected context, early
delivery as in our cases may save babies life. Any application of non-steroidal anti-inflammatory drugs
in pregnancy requires close fetal follow-up due to their potentially life-threatening effect.