Shines and shadows of fetal cardiac interventions

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The fetal cardiac intervention program was launched in Poland in June 2011, following a visit to the leading center for fetal cardiac interventions in Europe – Linz. Team members were watching fetal aortic valvuloplasty performed on two Polish patients. Afterwards the preliminary protocol for the Polish program was prepared, the team was established and necessary equipment was ordered. Criteria for fetal balloon aortic valvuloplasty (fBAV) and other cardiac interventional procedures were based on the available literature. The team consisted of a fetal cardiologist (J. Dangel), an obstetrician (M. Debska) and an interventional cardiologist (A. Kolesnik). The whole team took part in theoretical and practical training in the dissecting-room on a cadaver. The ethical committee of the Centre of Medical Postgraduate Education approved the program. Between June 6, 2011 and May 31, 2019 the team performed 120 fetal cardiac interventions in 107 fetuses: 90 balloon aortic valvuloplasties (fBAV) in 84 fetuses, 12 pulmonary valvuloplasties in 11 fetuses (fBPV), 5 balloon atrioseptostomies in 5 fetuses and 13 stent placement into the interatrial septum on 13 fetuses, 5 of whom had also fBAV. All available fetal cardiac interventional procedures were performed during a period of 18 months since the program started. Technical success was in about 90%. Biventricular circulation was obtained on 43% live born children with AS and 92% of cases with pulmonary atresia. Fetal interventions are technically possible, but new criteria should be established. Postnatal treatment of babies with AS is still the opened question.