Fetoscopic release of amniotic band limb constriction with umbilical cord involvement

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Objective
Since 1997 a few amniotic band syndromes (ABS) diagnosed following fetoscopic surgical intervention have been reported, the authors using various methods. We present 2 cases of ABS successfully treated by laser fetoscopy.

Methods
Case report.

Results
Case 1: A 26-year-old patient diagnosed at 18 weeks with an ABS involving the left foot with thick edema, the right slightly edematous clubfoot and the umbilical cord (UC). The movements were diminished in both ankles. No other morphological anomaly was seen. A fetoscopic release of the amniotic constriction band was performed at 20 weeks under local anesthesia. In utero we observed twisted amniotic sheets wrapped around the left ankle involving the right one and the UC. We cut the amniotic sheets by applying the tip of the laser fiber in direct contact with the visible parts of the amniotic bands away from the UC and fired continuous shots (25 watts) while injecting saline under 50ml syringe pressure. We noticed an immediate in utero regain of the pink color in the left foot. No complication was noted. Follow up scans reported an improvement in functionality of both feet, with independent movements. The patient delivered spontaneously at 38 weeks, with two functional feet (a right clubfoot necessitating kinesitherapy). Case 2: A 26-year-old patient was diagnosed at 22 weeks with ABS around the left hand and the UC. No flexion/extension movement of the hand was noticed. No other morphological defect was reported. A fetoscopic release of the amniotic constriction band was performed at 23 weeks. In utero we observed entanglement of multiple amniotic sheets around the fingers of left hand, involving also the UC. We used the same technique to liberate the fingers. No complication was noted. Follow up ultrasound scans showed regain of flexion/extension movements of the fingers in the left hand. The patient delivered spontaneously at 36.8 weeks with a normal function of the left hand.

Conclusion
The early detection of the ABS and an early fetoscopic release, especially the cases with UC involving can offer a better prognosis in limb functionality, trophicity, preventing amputation and intrauterine fetal demise.