

Feasibility of fetoscopic skin closure of spina bifida through a 12 Fr cannula using a synthetic dermal patch

J Deprest, Ph De Vloo, R Devlieger, M Belfort, L Joyeux, H Van der Merwe, JK Lesage, B Depreitere, S Devroe, G Attilakos, S Mastrodima-Polychroneu, E Van den Eede, P De Coppi – UZ Leuven, Leuven (BE) & UCLH-GOSH, London (UK)

Background: “Layered” watertight fetal repair for spina bifida aperta < 26 weeks is neuroprotective (*Adzick, NEJM 2011*)
In 20%, defects are that large they can not be primarily closed, hence they are repaired using a skin graft (e.g. Integra) (*Meuli, Ped Surg Int 2013*).

Methods: Of 165 consecutive fetal repairs, 79% could be closed primarily, hence in **21% a patch** repair was used.
In cystic lesions this was uncommon (8%; 8/110) whereas in flat lesions it was as high as 47% (55/165)

When introducing fetoscopic repair with exteriorized uterus, using **3 mm (10 Fr)** instruments and cannulas, we were not able to introduce Integra patches, due to frailty of the graft.

Results: Intact introduction of Novosorb™ (Polynovo) through a 3.6 mm (12 Fr) cannula is feasible. We used it successfully in four consecutive fetoscopic repairs. There was no CSF leakage at birth. Novosorb is synthetic and bilayered, and comes in 5*5 cm.

