

Subsequent fertility, pregnancy, gynaecological and psychological outcomes after maternal-fetal surgery for open spina bifida: a prospective cohort study

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Abstract

Objective: To determine the long-term maternal impact of open fetal spina bifida repair. *Design:* Prospective cohort study. *Setting:* University Hospitals Leuven, Belgium. *Population:* Hundred consecutive mothers who had open maternal-fetal spina bifida repair between 2012-2022. *Methods:* A patient-reported survey on subsequent fertility, pregnancy, gynaecological and psychological outcomes. *Main Outcome Measures:* Complications during subsequent pregnancies, gynaecological and psychological problems. *Results:* Seventy-two out of 100 invited women completed the questionnaire (72%). Despite being advised not to, 7/13 of women attempting to conceive, did so within two years after fetal surgery and one delivered vaginally. Two of the 16 subsequent pregnancies were complicated by an open neural tube defect. One pregnancy was complicated by a placenta accreta, and one by a uterine rupture, both with good neonatal outcome. Nearly half of respondents who did not attempt to conceive, reported that this was due to the experience during the index pregnancy and care for the index child. Three out of four respondents reported long-term psychological problems, mostly anxiety for the health of the index child, fear for recurrence in subsequent pregnancies and feelings of guilt. *Conclusions:* Open maternal-fetal surgery for spina bifida did not appear to affect fertility in our cohort. Half of the attempts to conceive took place within two years. One uterine rupture and one placenta accreta occurred in 16 subsequent pregnancies. Most respondents reported psychological problems linked to the index pregnancy, which reinforces the need for long-term psychological support. *Funding:* Great Ormond Street Hospital Children's Charity, FWO-Flanders, Klinisch Onderzoeksfonds UZ Leuven.

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