

Open fetal microneurosurgery for intrauterine spina bifida repair: outcomes between a primary training center and graduate-led centers

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Objectives:

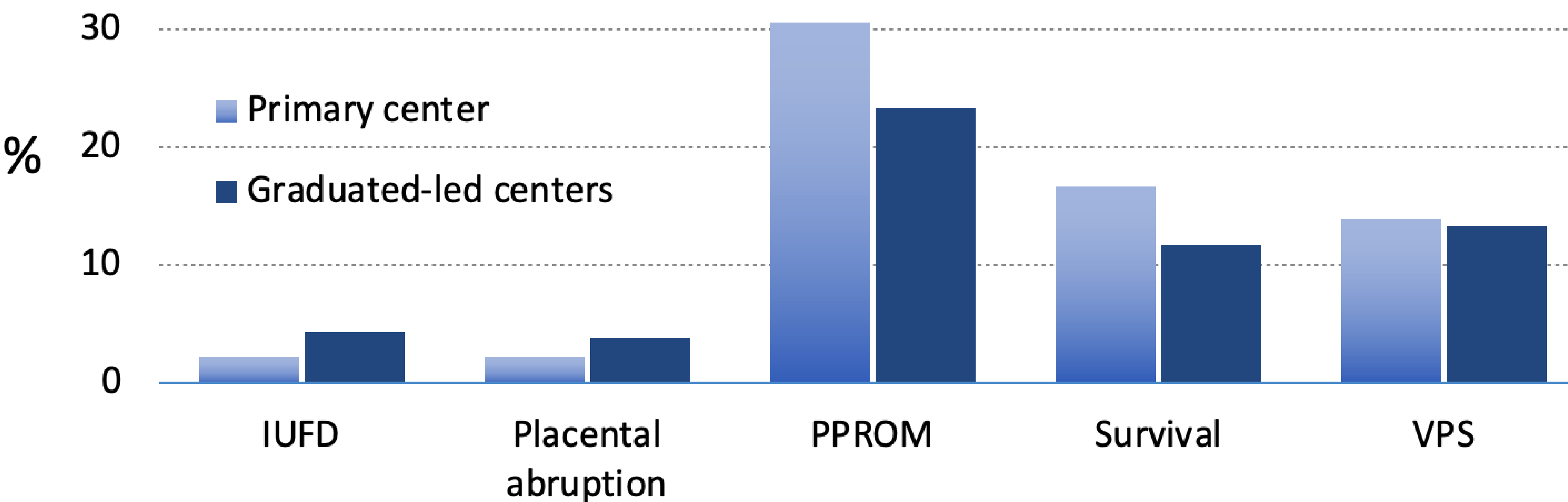
The aim of this study was to compare perinatal outcomes of cases managed with open fetal microneurosurgery for intrauterine spina bifida (SB) repair between a primary training center and graduate-led centers.

Methods:

A retrospective cohort of fetuses treated with intrauterine SB repair in a single primary training center were compared with cases operated at 12 graduate-led centers from 9 countries. In all participating centers, SB repair was performed by open fetal microneurosurgery, which is characterized by a 15-25mm hysterotomy diameter, reduced fetal manipulation by fixing the fetal back, and maintenance of normal amniotic fluid during the surgery. Outcomes between the lead training center and graduate-led centers, who completed one-year standardized fetal surgery training program were compared.

Results:

Intrauterine SB repair was successfully performed in 321 consecutive cases, 135 in the main experienced center and 186 in the graduate-led centers. GA at fetal intervention (26.0 vs. 25.4 weeks, $p>0.05$), surgical times (120. vs. 140.4 minutes, $p>0.05$), GA at birth (35.0 vs. 35.4 weeks, $p>0.05$), rate of complications and survival were similar between both study groups.



Conclusions:

After a standardized fetal surgery program, graduate-led centers achieved similar perinatal outcomes than a primary experienced center. Structured training may be a highly effective strategy for establishing new expert centers

