

Oral Presentation

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Intrauterine surgery for myelomeningocele and MOMS

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Ms. Worcestor of the Tallahassee Bureau reported in October 2003 that Dr. Joseph Bruner told a world conference in Lisbon that intrauterine myelomeningocele repair (IUMR) results in fewer urinary tract infections, less gastrointestinal reflux, improved leg function and cognitive development and less need for a cerebrospinal fluid shunt. Our experience has been with only 22 cases. The authors of articles from Children's Hospital of Philadelphia (CHOP) and Vanderbilt admit to premature births causing death (5 or 0.03%), infection, development of demoid tumours causing paralysis and maternal morbidity (*N Engl J Med* 2002). And their latest scientific article stated their CSF shunt rate is only 54.8 % (*Pediat Neurosurg* 2003). Our data are from five centres with experience in following patients referred for IUMR to CHOP, Vanderbilt or San Francisco. 20 of 22 mother/patients pairs (91%) are known to have significant complications as follows: 18/22 (82%) have CSF shunts one of whom had cardiac arrest due to high CSF pressure (2 were lost to follow up because their local centre recommended a shunt but the IUMR centre did not), 4 (17%) had the IUMR site dehiscence, 4 (17%) developed sepsis – 3 meningitis and 1 sepsis and intracranial bleed due to prematurity, 7 had symptoms of Chiari II (30%) of which 3 (14%) were decompressed and 1 has required both gastrostomy and tracheotomy with ventilation, 8 patients (36%) were born prematurely and spent prolonged time in the neonatal intensive care nursery, 2 patients had hydromyelia, and one patient each developed mental retardation, tethered cord, broken femur, scoliosis or kyphosis as young infants. Five mothers developed significant complications as follows: one each rupture of the uterus, abruption of the placenta, intrauterine haemorrhage, dehiscence of her abdominal wound and oligohydramnios. These percentages add up to greater than the 91% because some individual pairs had more than one complication.

Conclusion

The Management of Myelomeningocele Study (MOMS) being funded by the U S Government in the 3 centres mentioned above is critically important