

CASE STUDY

MAGNESIUM SULPHATE PROTECTS BABIES AGAINST CEREBRAL PALSY

Despite recent advances in the care around the time of birth that have led to large increases in the survival rates for very preterm babies, the rate of adverse long-term neurologic problems has not diminished in survivors, and remains too high compared with children not born preterm.

Babies born preterm have a higher chance of dying in the first few weeks of life, and preterm infants who survive have greater risk of neurological impairments such as cerebral palsy, blindness, deafness, or cognitive dysfunction, and a greater risk of substantial disability as a result of these neurological impairments.

New National Clinical Practice Guidelines released by ARCH in 2010 have presented that giving pregnant mothers magnesium sulphate when they are at risk of very preterm birth (less than 30 weeks of gestation) can help protect their babies from cerebral palsy.

Preparation of the guidelines, Antenatal magnesium sulphate prior to preterm birth for neuroprotection of the fetus infant and child, was led by ARCH Director Professor Caroline Crowther, in collaboration with a number of representatives around Australia and New Zealand.

“For infants born very premature, there is a high risk of cerebral palsy,” says Professor Crowther. “These guidelines present evidence to support giving magnesium sulphate therapy to women at risk of very preterm birth to increase their unborn baby’s chance of survival, free of cerebral palsy.”

At present there is no cure for cerebral palsy, which makes effective preventive interventions of paramount importance.

Magnesium sulphate therapy involves giving doses of magnesium sulphate to pregnant women via injection. It is known that magnesium is vital for normal cell function, may protect against destructive molecules that can harm cells, and in some circumstances improves blood flow.

These guidelines have led to the development of the WISH project (Working to Improve Survival and Health for babies born very preterm), which will monitor and improve the uptake of antenatal magnesium for neuroprotection.

The group were fortunate to be granted funding from the Cerebral Palsy Alliance which will enable monitoring to improve the uptake of antenatal magnesium for neuroprotection in Australian tertiary maternity hospitals.

Full details of the guidelines can be downloaded at:
www.adelaide.edu.au/arch.

