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SDR for Children functioning at GMFCS IV & V

Selective dorsal rhizotomy for children functioning at GMFCS level IV or V is a difficult question, because the goals are very different than for GMFCS level II or III children. Where GMFCS level II or III children are usually looking to improve their functional mobility, for children at GMFCS levels IV or V the goals are more centred around comfort and pain relief rather than mobility - as explained below.

One of the important things for children in this GMFCS IV category is that they often rely on their quadriceps tone to help them stand, and to allow them to undertake standing transfers. SDR carries with it the likelihood of reducing the quadriceps tone, and therefore preventing standing transfers from being possible. This makes consideration of selective dorsal rhizotomy surgery much harder for this group, with a much greater likelihood that it would not be of benefit due to the loss of standing transfers. For these reasons, in general we tend to find ourselves recommending intrathecal baclofen therapy because it can be tailored to the child's needs and can also be reversible if it is reducing their functionality.

These challenges are less with the GMFCS level V children as they tend to rely more upon hoist transfers, however they have other complex needs that again make an SDR decision challenging.

It is also our experience that children functioning at GMFCS level IV or V often have a more complex brain injury than simply PVL - one which involves the thalami or basal ganglia. This in turn means that they more frequently have other movement disorders such as dystonia. This is considered to be a contra-indication to proceeding with SDR.

We hope this helps in your understanding of the role of SDR for children functioning at GMFCS level IV or V.
In principle we can review information in a formal referral but in general have found that it has not been the best treatment choice for these children.

For further information please contact:

Mr John Goodden – Consultant Paediatric Neurosurgeon
Tel: 0113 392 8413 Email: valerie.allerton@nhs.net

Dr Raj Lodh - Consultant in Paediatric NeuroRehabilitation
Tel: 0113 392 6903 Email: lynsey.kite@nhs.net

Kate McCune & Katie Davis – Specialist Children's Physiotherapists
Tel: 0113 392 6361 Email: k.mccune@nhs.net and katie.davis3@nhs.net