SPINAL DIMPLE – NEONATAL MANAGEMENT
THE ROYAL HOSPITAL FOR WOMEN - GUIDELINE

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DATE REVISED 01/03/2015  REVISED BY Dr P Mishra, Dr S Bolisetty

APPLICABLE TO Newborn Care Centre Staff – Nursing & Medical

IMPLICATIONS 15 staff to be randomly audited on the procedure for evidence of knowledge of the procedure.

DATE POSTED ON NCC WEBSITE XXXX

APPROVED BY Newborn Care Centre Quality Committee on 2/03/2015

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ABBREVIATIONS & DEFINITIONS OF TERMS
OSD Occult Spinal Dysraphism

PURPOSE
• To differentiate the occult spinal dysraphism (OSD) from simple sacral dimple.
• To appropriately investigate and arrange follow up for infants with OSD

AIM
These guidelines cover
• The indications for imaging
• Advantages and disadvantages of the 2 main imaging modalities
• Referral to Spina Bifida Clinic at Sydney Children’s hospital

EQUIPMENT
N/A

CLINICAL PRACTICE
Imaging not required for the following:
• Simple Dimples
  o <5mm deep and <2.5cms from anal verge
• Coccygeal pits (located within gluteal cleft, oriented caudally or straight down)

Order Spinal Ultrasound for the following:
• Subcutaneous mass or lipoma (sometimes seen as deviation of gluteal fold)
• Hairy patch
• Dermal sinus (Sinuses opening onto skin surface, located above gluteal cleft and have a cephalically oriented tract)
• Atypical Dimples:
  o Deep (>5mm)
  o >2.5cms from anal verge
  o Vascular lesion e.g. hemangioma, telangiectasia
  o Skin appendages or polypoid lesions e.g. skin tags, tail like appendages
  o Scar like lesions

Sacral Dimple
Management of Atypical Dimple and Abnormal Imaging

- Review Spinal Ultrasound result whilst the baby is in Hospital or as an outpatient
- If Ultrasound is abnormal
  - Organise Appointment in Spina Bifida clinic (CNC phone ext; 21595).
  - May inform Neurosurgery Reg and Clinical Nurse Consultant (CNC) Paediatric Neurosurgery (Pager 47165) and Urology Fellow or Registrar about any intervention needed prior to appointment in spina bifida clinic.
  - Arrange for a Urinary Tract Ultrasound at 1 month of age, irrespective of spinal ultrasound finding, if the Dimple is atypical or abnormal cutaneous signs are present, and fax a referral to Spina Bifida Clinic (phone extension 21595) for a review in 4-6 weeks with urinary tract ultrasound report.
  - The decision not to send to Clinic should be at neonatologist’s discretion.

DOCUMENTATION

- Integrated Clinical Notes

EDUCATIONAL NOTES

Why look for OSD?

- If untreated OSD can lead to neurological sequelae in the lower limbs, urinary and bowel symptoms
- In tethered Cord syndrome, cord traction can occur as a result of growth which may impair microcirculation to the cord leading to progressive cord ischaemia.
- Surgical intervention for spinal lesions may prevent irreversible neurological damage
- When OSD is the primary finding at least 50% are associated with cutaneous marker.
- It is thought that between 3-8% of patients with significant skin lesions over the spine will have an underlying OSD. A combination of 2 or more cutaneous lesions has been shown to be the highest indicator of OSD.

Which Imaging to choose?

Spinal Ultrasound

- Advantages
  - Best undertaken within 3 months of age, generally earlier the better. After 6 months not possible as Spinal ossification occurs and quality of examination becomes very poor
  - Cheap
  - Portable and don’t require anaesthesia
  - First Line investigation
- Disadvantages
  - Can miss small amounts of fat within the filum terminale and small dermal sinus tracts
  - Imaging abnormalities seen
  - Poor Visualisation of bony structures

- Ultrasound anomalies
  - Position of Conus (Lower in tethered cord syndrome). Conus should not be lower than L2 at any age.
  - A thickened filum or a lipoma
  - Normal mobility of nerve roots in the thecal sac

Spinal MRI

- Advantage
  - Better visualisation of bony structures
  - Identify fusion defects and segmentation anomalies such as hemivertebra.
- Disadvantages:
  - Expensive, Not portable, requires Anaesthesia

RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- None
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