Myelomeningocele

Children's Mercy KANSAS CITY | Evidence Based Practice

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Abbreviations (laboratory & radiology excluded):
pt. = patient
UTD = Urinary Tract Dilation
MRI = Magnetic Resonance Imaging
UTI = Urinary Tract Infection
POD = Post-Op Day

Newborn Myelomeningocele

Pre-natal Repair

Born at CMH?

- No → Recommendation if born at outside hospital for pre-natal repair
- Yes →

Incision Management:
- Routine skin care, if patch is exposed then skin care per neurosurgeon evaluation and recommendation

Consult:
- Neurosurgery
- Urology when there is hydronephrosis (UTD 2 and above)
- Rehab
- Spinal Differences Coordinator
- Occupational Therapy for feeding issues (if needed)
- Physical Therapy (if needed)
- Orthopedics at direction of rehab team

Antibiotics:
- UTI prophylaxis (ampicillin or cephalexin) if any hydronephrosis on renal US

Imaging:
- MRI Brain Rapid Sequence
- MRI Spine (Full)
- Renal Ultrasound
- Head Ultrasound if unable to obtain MRI

Clean Intermittent Catheterization (CIC)

Hydrocephalus Treatment?

- Yes → Post Op Management:
  - Head ultrasound POD 1
  - Daily head circumference
  - Wash incision POD 2
  - **No Scalp IV**
- No →

Discharge Readiness:
- Orally feeding
- Safe sleep plan established
- Incision care plan per neurosurgery
- Complete family teaching: Family teaching resources

Post-natal Repair

Born at CMH?

- No → Recommendation if born at outside hospital for post-natal repair
- Yes →

Preoperative Care

Spinal Defect Management:
- Telfa then saline-soaked gauze, then secure with Saran Wrap

Consult:
- Neurosurgery
- Urology when there is hydronephrosis (UTD 2 and above)
- Rehab
- Spinal Differences Coordinator
- Occupational Therapy for feeding issues (if needed)
- Physical Therapy
- Orthopedics at direction of rehab team

Antibiotics:
- Ampcillin and gentamicin until repaired
- UTI prophylaxis (ampicillin or cephalexin) if any hydronephrosis on renal US

Preoperative Imaging
- MRI Brain Rapid Sequence
- MRI Spine (Full)
- Renal Ultrasound
- Head Ultrasound if unable to obtain MRI

Repair occurs day of life 1-2 if clinically stable per Neonatology and Neurosurgery assessment

Back Incision Management
- Postoperative positioning prone for 48h, then check with attending neurosurgeon for further duration
- Mud flap

Hydrocephalus Treatment?

- Yes →
  - CIC
  - Renal Bladder Ultrasound
  - Head ultrasound POD 1
  - Daily head circumference
  - Wash incision POD 2
  - Additional head imaging maybe needed per neurosurgery
  - **No Scalp IV**
- No →
  - Additional head imaging maybe needed per neurosurgery
  - CIC
  - Renal Bladder Ultrasound

Hydrocephalus Treatment?

- No →
- Yes → Hydrocephalus Treatment?

Discharge Readiness:
- Orally feeding
- Safe sleep plan established
- Incision care plan per neurosurgery
- Complete family teaching: Family teaching resources

Discharge follow up appointments (timing):
- PCP (outpatient head circumference, weight gain follow-up and early referral prn)
- Spinal Differences Clinic (SDC) (3 months from discharge)
- Neurosurgery (follow up sooner than 3 months if concerns of incision issues or hydrocephalus, otherwise 3 months at SDC)
- Urology (3 months at SDC)
- Early intervention (PT/OT/Speech)

Contact: EvidenceBasedPractice @cmh.edu

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