Guidelines for the Evaluation and Management of Isolated Simple Linear Skull Fracture in Pediatric Trauma Patients (Not Birth Related)

Nicklaus Children's Hospital | Miguel "Mike" B. Fernandez Family Pediatric Trauma Center

Demonstrated Simple Linear Skull Fracture (1)

Complete trauma workup to include history, "Head-to-Toe" exam and Trauma Labs

Suspected non-accidental trauma?

Observe requirement to report abuse to DCF Hotline

Yes

Patient age less than 2-years?

Yes

Initiate Child Abuse Evaluation including Skeletal Survey

No

No

MVC related trauma?

Yes

No

Patient age less than 12-month?

No

Yes

Auto-pedestrian Injury?

Yes

Order Ophthalmology Consultation

No

Fall greater than 3 feet?

Yes

No

Heavy object struck head?

Yes

No

Less than 8 weeks of age?

Yes

No

Evaluate if appropriate for consideration of discharge (2)

Appropriate for discharge home? (2)

Yes

Discharge and F/U Within Four Weeks with PMD or Neurosurgery

No

Admit to Trauma Service (Pediatric Surgery)

Simple Linear Skull Fracture (1)

1. Margins separated by less than 3 mm
2. Non-depressed/minimally depressed
3. No intracranial injury - No cerebral contusion/No suspected extra axial blood > 2 mm in thickness
4. Not a basilar skull fracture/not involving posterior fossa
5. Fracture not to Foramen Magnum
6. No pneumocephalus
7. Confirmed by Radiology

Considerations for Possible Discharge (2)

1. The child alerts easily and has a normal neurological exam (including GCS)
2. No unremitting vomiting and able to tolerate clear oral fluids
3. Observed in the ED for at least four hours
4. No significant extra-cranial injuries
5. Social Worker family assessment is without concerns
6. No suspicion of abuse or neglect
7. Child lives in relatively close proximity to healthcare and has reliable caretakers who are able to return if necessary
8. Parents are given clear instructions and contact information for follow-up
9. No history of bleeding disorder, no acute anemia from subgaleal hematoma, or current anticoagulation therapy

Inclusion Criteria

Patients presenting to Nicklaus Children's Hospital/ Healthcare System with a Simple Linear Skull Fracture

Exclusion Criteria

1. Intracranial Injury or Altered Mental Status
2. Patient greater than 20-years-old
3. Pregnancy
4. Known or suspect abnormality of coagulation

Quality Metrics

1. Adherence with pathway recommendations
2. Adherence with requirements for reporting of suspected child abuse
3. Readmission, all cause, within 30 days
4. "Missed" other diagnosis.

Malvezzi, Swain, Lau, Biehler, Gagnon (March 2023) #2