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**Pediatric Patients with Dog Bites Resulting in Skull Fractures Requiring Neurosurgical Evaluation and Management: A Single-Center Review**

**Introduction:** Dog bite injuries comprise a small but significant portion of ED and hospital admissions each year. Severe injury from dog bites has the highest incidence in young children, who are especially susceptible to skull fracture due to their thin craniofacial bones and little ability to defend themselves from dog attacks. This study characterizes the presentation, management, and treatment of ten patients admitted to a local children's hospital for skull fractures secondary to dog bites. While this mode of injury is relatively uncommon, consequences of these injuries can be severe and lasting, so our study aims to add relevant and specific information concerning the management of skull fractures requiring neurosurgical evaluation and management in pediatric dog bite patients to the literature.

**Case Illustrations:** Ten pediatric patients presented to Children's Hospital in New Orleans with dog bite-related injuries requiring neurosurgical intervention or management. Patients presented with a variety of issues including, but not limited to scalp lacerations, depressed skull fractures, punctate hemorrhages, intracranial hematomas. All patients were three years of age or younger. The neurosurgical team was involved in the management of all included patients and decided whether or not surgery would be beneficial for each patient. For 6 of 10 (60%) patients, neurosurgical intervention was necessary in the form of wound washout and/or fracture repair. 10 of 10 (100%) patients required surgical intervention of any kind. Other involved surgical specialties included plastic surgery, ENT, trauma surgery, and ophthalmology. All patients were medically managed and monitored for neurological deficits and infection. All patients were up to date on their childhood immunizations and were administered IV antibiotics. One of ten (10%) patients developed an infection (*Pasteurella* meningitis and intracranial abscess) from their dog bite injuries. All patients healed well and remained neurologically intact with no developmental deficits reported during follow-up visits.

**Conclusions:** The treatment of dog bite injury in children is multifactorial and is individualized for each patient. It is important that patients are up to date on their vaccinations and are administered appropriate antibiotic coverage to decrease infection risk. Dog bite injuries are preventable, and increased education is necessary for parents and children. The addition of more cases describing pediatric dog bite injuries that require neurosurgical intervention is necessary to develop clinical algorithms determining the medical and surgical management of this unique group of patients.