Animal Attack: An Unusual Case of Multiple Trauma in Childhood

Abstract:
E O'Grady, M Doyle, CWR Fitzgerald, A Mortell, D Murray
Children's University Hospital, Temple St, Dublin 1

Abstract
A 2 year old girl attended our facility following attack by a tapir at a city zoo. She sustained multiple injuries including a forearm laceration and multiple perforating wounds to her abdominal wall. She had several procedures, including bowel resection, performed under the care of the General Paediatric Surgery and Plastic Surgery teams and was treated with a course of IV antibiotics. She recovered well and to date has suffered no long term adverse outcome.

Case Report
Tapirs are herbivores about the size of a large pig, originating in South America. There have been few reported attacks. Only one of these, a fatality occurring in Brazil, is fully documented in the medical literature. Other attacks reported in general media include an attack in the wild and one in Oklahoma Zoo where a keeper was attacked by a female tapir who had recently calved. Our case concerns a 2 year old girl brought in by ambulance following attack by a tapir at a city zoo. The father reported that the child was attending a behind-the-scenes tour in the children's enclosure and was attacked by a female tapir who had recently calved. She was bitten, held to the ground and shaken. Her mother intervened and sustained bite injuries while attempting to rescue the child. No loss of consciousness was reported. Initial observations showed Glasgow Coma Score 14-15/15, heart rate 140 and blood pressure 109/54. Multiple injuries were noted including: a deep laceration of the palmar aspect of her left forearm, haematoma on her right forehead and multiple abdominal lacerations, the largest of which was at the left costal margin and had large bowel eviscerated through it.

Following stabilisation and initial imaging she was brought to theatre for a trauma laparotomy. She was found to have a total of 4 wounds on her abdomen - 2 stab/puncture wounds on the right upper abdomen and 1 stab/puncture wound on the left upper abdomen, as well as the large elliptical wound previously noted in the left upper quadrant. There was significant contamination of her wounds with plant matter and soil and extensive tangential muscle injury. All 4 wounds were found to breach the peritoneum. A transverse incision was made from left to right lower stab wounds. Inspection of viscera revealed an 11cm region of serosal injury and perforation in the jejunum approximately 65cm from the DJ flexure. No other visceral injury was found. Resection of the de-serosalised/perforated segment of jejunum followed by an end to end anastomosis was performed. The appendix was also excised prophylactically. The peritoneal cavity and muscle wall defects were washed out and wounds were closed both internally and externally with absorbable sutures.

During this anaesthetic the patient also underwent debridement and primary closure of a left forearm wound under the care of the Plastic Surgery team. Her basilic vein had been traumatically divided within sufficient length for re-anastomosis and so was tied off. Post operatively the patient was nursed in the Paediatric Intensive Care Unit with nasogastric tube drainage, catheter output monitoring and intravenous antibiotic therapy with Piperacillin-Tazobactam, Gentamicin and Metronidazole as per the Infectious Diseases team. A peripherally inserted central catheter was inserted Day 1 post op and total parenteral nutrition was started. She did very well and was discharged home on Day 7 post op. At six-week follow up she was found to have full recovery and abdominal and forearm wounds were healing well with no signs of infection.

Discussion
Animal bites (most frequently dog/cat bites) are relatively common in both children and adults, with children being particularly at risk being both more frequently bitten and tending to sustain more severe injuries (vicious attacks and sustained bites). Children are also more likely to suffer multiple injuries. Infection is a frequent complication with 15-20% of bites becoming infected. Our patient was fortunate in that she suffered no infectious complications despite being at high risk for infection (puncture wounds, arm wounds, full thickness wounds requiring debridement) and also emerged with no long term morbidity.

Correspondence: E O'Grady
Children's University Hospital, Temple St, Dublin 1
Email: evaogrady@gmail.com

References

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Comments: