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## Acute Management of an Abdominal Cavity Perforation in a Collegiate Baseball Pitcher: A Case Report.

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## Acute Management of an Abdominal Cavity Perforation in a Collegiate Baseball Pitcher: A Case Report.

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**Acute Management of an Abdominal Cavity Perforation in a Collegiate Baseball Pitcher: A Case Report.**

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Background: A 21-year-old male collegiate baseball player was performing warm up exercises when he tripped backwards onto one of the team's pitching machines that had been laid on its side. Upon falling backward, the patient sustained a puncture wound through the left buttock from one of the machine's handles. Unaware of the injury, the patient's teammates lifted him off of the machine and retrieved the athletic trainer. Evaluation revealed a deep wound with visible adipose tissue and musculature. At this time, the patient was immediately transported to the emergency department of the local hospital, and team physicians were informed to alert the hospital of the patient's impending arrival. Differential Diagnosis: Puncture wound of the left buttock, abdominal organ injury, anal laceration. Treatment: Upon arrival at the hospital the patient was admitted for evaluation. Initial inspection of the wound revealed the anal sphincter was intact. A CT scan was ordered due to the possibility of perforation of the abdominal cavity. The CT scan revealed that the handle of the pitching machine had perforated the patient's abdominal cavity to a depth of 14 cm. The handle traveled through the sciatic notch of the pelvis, anterior to the bowel and posterior to the bladder. During the penetration and subsequent removal, the handle did not come in contact with any blood vessels or nerves. While the CT scan showed evidence of the handle making contact with the bladder, the bladder was intact. The wound was then flushed and debrided, and closed with eight sutures. The patient was administered intravenous antibiotics while in the hospital. After performing a bowel movement and urinating, the patient was discharged the same day of admittance with a prescription for oral amoxicillin and hydrocodone. Two days following the injury, the patient was evaluated by the team physician in clinic. Evaluation found the wound to be healing well with no signs of infection. The team physician and athletic trainer reiterated the need to monitor for signs of infection, and reinforced the need to report any blood with bowel movements or urination. Seven days post injury, the patient was re-evaluated by the trauma surgeon who had treated him in the hospital. The wound was continuing to heal well, and the patient was instructed to return at 14 days for suture removal. After the sutures were removed, the patient was allowed to begin progressing into light physical activity consisting of resistance band training and light throwing. 28 days post injury, the patient returned to full team activities, including full intensity practice and weight lifting. Throughout the healing process, the patient experienced constipation no complications in the form of infection or issues with urination. Uniqueness: The nature in which the patient was injured does not fit with a typical mechanism of injury found in sport. Additionally, given the location of the injury the lack of neurovascular or organ damage is noteworthy. Lastly, the patient did not require pelvic floor therapy to return to activity even though the handle of the pitching machine damaged the muscle wall of the abdomen. Conclusions: When caring for an acute traumatic injury, timely and appropriate referral is paramount to ensuring optimal patient outcomes. Emergency action plans should incorporate a chain of communication that includes the team physician in order to make sure that proper healthcare professionals are informed prior to the arrival of a patient. Evaluation and reevaluation of healing injuries is critical to ensuring timely referral to therapy specialists if needed.