Spinal Pain and Pathology in the U.S. Collegiate Equestrian Athlete
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Context: Spinal injuries are a common occurrence across all sports; with equestrian sports being particularly well recognized for its’ frequency in producing serious spinal injury. Although hospital based data and some grossly compiled acute contest data is available, there is a significant lack of data describing the specific types and range of spinal injuries occurring in collegiate equestrian athletes.

Objective: The purpose of this study is to investigate the occurrence and severity of spinal pain and pathology in the collegiate equestrian athlete. Design/ Intervention: An online survey was constructed based on the available literature, input from the researchers, and insights from experts in the area being studied. The online survey instrument was designed to gather demographic and whole body injury data from collegiate equestrian athletes. Descriptive data was analyzed using Excell for Mac version 11.4.

Setting: Forty-three schools, ranging from DI to DIII, from the Eastern United States were selected from the NCAA and Intercollegiate Horse Show Association’s website. An estimate of 17 athletes per team was utilized to provide for a total of 756 potential athletes.

Participants: A total of 73 athletes (10.3% response rate) participated (women n=71, men=2, age = 20.3 years, weight=62.29kg, height=174.75 cm). The mean number of hours of practice/week was 7. The mean number of years riding was 11.7 years. All riding disciplines were represented.

Results: There were 95 responses indicating spinal pathology. Seventeen fractures involving the spine (8), ribs (5) and pelvis (4) were reported. 9.59% (7/73) reported either isolated LBP or whole spine pain. 23.29% noted two areas of pain. There was essentially an equal split (49.32% vs. 50.68%) between those reporting no pain and those reporting at least one area of spinal pain. 6.85% (5/73) and 1.37% (1/73) reported isolated TS and neck pain respectively. The most common combination of spinal pain reported is Lumbar/Thoracic (10/73 or 13.70%). 10.96% (8/73) reported a herniated disc in at least one area of the spine.

Conclusions: The current study is one of the first investigating the incidence of spinal pain and pathology in collegiate equestrian athletes. The data collected indicates that spinal injury is a very significant occurrence in equestrian. The early onset of spinal pathology can have significant ongoing impact on quality of life. Focusing on effectively managing cited ancillary contributors (riding technique, learning to fall, etc) and early instruction regarding the importance of dedicated spinal stabilization exercises should be a focus in decreasing the incidence and early onset of spinal pathology in this group of under appreciated athletes.

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