CERVICAL SPINE FRACTURE DETECTION

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A timely and precise diagnosis is essential for treating cervical spine fractures, a hazardous medical condition that can deteriote and require more care. Conventional detection techniques frequently depend on radiologists doing manual examinations, which is laborious and error-prone. In this work, we propose an automated CNN-based method that can reliably and highly specifically diagnose cervical spine fractures from CT scans. In our method, the CT scans are preprocessed, and then characteristics are obtained using a CNN model that is trained on a sizable collection of pictures with annotations. We assessed our model's performance on an test set and contrasted its results with professional radiologists' judgments. The outcomes show that our CNN-based method is successful in correctly identifying cervical spine fractures, indicating that it may be a useful tool to support radiologists in their clinical work. With the capability to increase cervical spine fracture detection efficiency and accuracy, this automated method could result in better patient outcomes and lower healthcare expenditures.

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