Cervical Stabilization and Controlled Loading Collar

Published date: Jan. 6, 2015

Technology description

Cervical extrication collars have been used for decades to secure and protect the necks of accident victims. However, little research has been done to quantify the uncontrolled forces these collars can place on an unstable cervical spine. Researchers at Baylor College of Medicine conducted studies using fresh whole human cadavers, and discovered potentially serious limitations in existing collar designs and the guidelines controlling their use. These limitations, in both concept and design, have been shown to cause catastrophic complications in trauma patients. Inspired by this alarming finding, the researchers designed a new trauma cervical stability device that would address the problems of existing extrication collars. This innovative device is simple and does not dramatically change the way EMS personnel assess and stabilize patients in the field prior to transport to a trauma center. The design comprises a cap element, releasable and adjustable head straps, a shoulder harness, and adjustable members operatively connected to the cap element and the shoulder harness.

Advantages

The trauma cervical stability device in this design is compact, easy to use, inexpensive to manufacture, and can be placed on a patient with little or no movement of the human body. - It is also useful in diagnosing the severity of damage to a neck and the stability of the patient's neck by applying forces to the patient's head.

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