Benefit of the Vittel criteria to determine the need for whole body scanning in a severe trauma patient.

Submitted by Christophe Aube on Mon, 09/29/2014 - 15:36

**Titre**
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**Type de publication**
Article de revue

**Auteur**
Babaud, J [1], Ridereau-Zins, Catherine [2], Bouhours, Guillaume [3], Lebigot, Jérôme [4], Le Gall, R [5], Bertrais, Sandrine [6], Roy, Pierre-Marie [7], Aubé, Christophe [8]

**Editeur**
Elsevier Masson

**Type**
Article scientifique dans une revue à comité de lecture

**Année**
2012

**Langue**
Anglais

**Date**
2012 May

**Pagination**
371-379

**Volume**
93

**Titre de la revue**
Diagnostic and Interventional Imaging

**ISSN**
2211-5684

**Mots-clés**
Adolescent [9], Adult [10], Aged [11], Aged, 80 and over [12], Female [13], Humans [14], Injury Severity Score [15], Male [16], Middle Aged [17], Multiple Trauma [18], Prospective Studies [19], Whole Body Imaging [20], Young Adult [21]

**OBJECTIVE:** To evaluate the use of the Vittel criteria in addition to a clinical examination to determine the need for a whole body scan (WBS) in a severe trauma patient.

**MATERIALS AND METHODS:** Between December 2008 and November 2009, 339 severe trauma patients with at least one Vittel criterion were prospectively evaluated with a WBS. The following data were collected: the Vittel criteria present, circumstances of the accident, traumatic injury on the WBS, and irradiation. The original intent to prescribe a computed tomography (CT) scan (whole body or a targeted region), based solely on clinical signs, was specified.

**RESULTS:** Injuries were diagnosed in 55.75% of the WBS (n=189). The most common Vittel criteria were "global assessment" (n=266), "thrown, run over" (n=116), and "ejected from vehicle" (n=94). The multivariate analysis used the following as independent criteria for predicting severe traumatic injury on the WBS: Glasgow score less than 13, penetrating trauma, and colloid resuscitation greater than 11. Based solely on clinical factors, 164 patients would not have had any scan or (only) a targeted scan. In that case, 15% of the severe injuries would have been missed.

**CONCLUSION:** Using the Vittel criteria to determine the need for a WBS in a severe trauma patient makes it possible to find serious injuries not suspected on the clinical examination, but at the cost of an increased number of normal scans.

**Résumé en anglais**
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**URL de la notice**
http://okina.univ-angers.fr/publications/ua4194 [22]
Liens
[23] http://dx.doi.org/10.1016/j.diii.2012.02.007

Publié sur Okina (http://okina.univ-angers.fr)