

# Predictive Factors of Poor Prognosis After Surgical Management of Traumatic Acute Subdural Hematomas: A Single-Center Series

Submitted by Stéphanie Pinot on Wed, 06/05/2019 - 11:49

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| Titre               | Predictive Factors of Poor Prognosis After Surgical Management of Traumatic Acute Subdural Hematomas: A Single-Center Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Type de publication | Article de revue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Auteur              | Baucher, Guillaume [1], Troude, Lucas [2], Pauly, Vanessa [3], Bernard, Florian [4], Zieleskiewicz, Laurent [5], Roche, Pierre-Hugues [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Editeur             | Elsevier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Type                | Article scientifique dans une revue à comité de lecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Année               | 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Langue              | Anglais                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Date                | Juin 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Pagination          | e944-e952                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Volume              | 126                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Titre de la revue   | World Neurosurgery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ISSN                | 1878-8769                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mots-clés           | Acute subdural hematoma [7], Craniectomy [8], Polytrauma [9], traumatic brain injury [10]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Résumé en anglais   | <p><b>BACKGROUND:</b> Traumatic acute subdural hematomas (ASDHs) showed the highest mortality of intracranial hematomas. The aim of the current study was to identify predictive factors of poor prognosis among patients who were operated on.</p> <p><b>METHODS:</b> This is a single-center retrospective cohort study of 82 patients who underwent surgical evacuation of a traumatic ASDH between January 2009 and December 2016. The epidemiologic, clinical, radiologic, and surgical features were recorded. Postoperative outcome were assessed by the Glasgow Outcome Scale (GOS) score at 6 months. Univariate and multivariate analysis and a classification and regression tree (CART) were performed.</p> <p><b>RESULTS:</b> At 6 months, 76% of patients achieved an unfavorable outcome (GOS score 1-3). The context of polytrauma (<math>P = 0.03</math>) and ASDH thickness <math>\geq 20</math> mm (<math>P = 0.02</math>) were significantly associated with poor outcome in the multivariate analysis. The CART algorithm isolated 3 subgroups of patients with an unfavorable prognosis: polytrauma (91%), isolated head injury (HI) featuring an ASDH thickness <math>\geq 20</math> mm (89%), or isolated HI featuring a thickness <math>&lt; 20</math> mm in a patient older than 54 years (71%). Isolated patients with HI younger than 54 years harboring an ASDH <math>&lt; 20</math> mm thick had the most promising results, with 53% with a GOS score of 4 or 5.</p> <p><b>CONCLUSIONS:</b> The context of polytrauma, ASDH thickness, and age were major predictive factors of poor prognosis in patients with surgically evacuated traumatic ASDH. The CART algorithm using these features isolated subgroups with decreasingly unfavorable outcome, providing a relevant statistical tool to apply to future studies of traumatic ASDH.</p> |

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DOI [10.1016/j.wneu.2019.02.194](https://doi.org/10.1016/j.wneu.2019.02.194) [12]

Lien vers le document <https://www.sciencedirect.com/science/article/abs/pii/S1878875019306345?...> [13]

Titre abrégé World Neurosurg

Identifiant  
(ID) [30876998](#) [14]

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- [12] [http://dx.doi.org/10.1016/j.wneu.2019.02.194](https://doi.org/10.1016/j.wneu.2019.02.194)
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