Introduction: Les patients ayant un retour de circulation spontanée (RCS) durant la phase préhospitalière de leur réanimation suite à un arrêt cardiaque extrahospitalier (ACEH) ont un meilleur taux de survie que ceux n'en ayant pas. La durée des efforts de réanimation avant l'initiation d'un transport ne varie généralement pas en fonction du rythme initial observé. Cette étude vise à comparer la durée des manœuvres de réanimation nécessaire afin de générer la majorité des RCS préhospitaliers et des RCS préhospitaliers menant à une survie en fonction du rythme initial. Methods: La présente étude de cohorte a été réalisée à partir des bases de données collectées de la Corporation d’Urgences-santé dans la région de Montréal entre 2010 et 2015. Les patients avec un ACEH d’origine médicale ont été inclus. Les patients dont l’ACEH était témoigné par les paramédics ont été exclus, tout comme ceux dont le rythme initial était inconnu. Nous avons comparé entre les groupes (rythme déflibrillable [RD], arrêt électrique sans pouls [AESP] et asystolie) les taux de RCS préhospitalier et le temps nécessaires pour obtenir une majorité des RCS préhospitaliers et des RCS préhospitaliers menant à une survie. Results: Un total de 6002 patients (3851 hommes et 2151 femmes) d’un âge moyen de 52 ans (±10) ont été inclus dans l’étude, parmi lesquels 363 (9%) ont survécu jusqu’à leur congé hospitalier et 1310 (22%) ont obtenu un RCS préhospitalier. Un total de 1545 (26%) patients avaient un RD, 1654 (28%) une AESP et 2803 (47%) une asystolie. Les patients avec un RD ont obtenu plus fréquemment un RCS préhospitalier et un RCS préhospitalier menant à une survie que les patients avec une AESP qui eux même avaient un meilleur pronostic que ceux avec une asystolie initial (777 patients [55%] vs 385 [23%] vs 148 [5%], p < 0,001; 431 [28%] vs 85 [5%] vs 7 [0,2%], p < 0,001, respectivement). Les RCS survenaient également plus rapidement lorsque le rythme initial était un RD (13 minutes [±12] vs 18 [±13] vs 25 [±12], p < 0,001). Cependant, une période de réanimation plus longue était nécessaire afin d’obtenir 95% des RCS préhospitaliers menant à une survie pour les patients avec un RD (26 minutes vs 21 minutes vs 21 minutes). Conclusion: Les patients avec un rythme initial déflibrillable suite à leur ACEH sont à meilleur pronostic. Il serait envisageable de transporter plus rapidement vers l’hôpital les patients avec une AESP ou une asystolie que ceux avec un rythme déflibrillable si l’arrêt des manœuvres n’est pas envisagé.

Keywords: cardiac rhythm, out-of-hospital cardiac arrest, return of spontaneous circulation
Efficacy of calcitonin for treating acute pain associated with osteoporotic vertebral compression fracture: an updated systematic review and meta-analysis

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Introduction: Acutely painful osteoporotic vertebral compression fractures (OVCFs) are common in elderly individuals. Most OVCFs result from falls or routine activities, such as lifting objects or bending. OVCFs are associated with increased hospitalization, mortality and reduced quality of life. Calcitonin has been studied as an alternative or adjunct to opioid or non-opioid analgesia for treating acute pain associated with OVCFs. This review evaluates current evidence on the benefits and harms of calcitonin related to OVCFs.

Methods: We registered our review protocol on PROSPERO (CRD42018084850) and conducted our study in compliance with PRISMA guidelines. We searched MEDLINE, EMBASE, The Cochrane Database of Systematic Reviews, clinical trials registries, conference papers and reference lists of included studies. Eligible studies evaluated the effect of calcitonin on pain scores in adults ≥60 years-old with a recent OVCF (<45 days prior). Two reviewers independently screened studies, extracted data and allocated bias in duplicate. Data were pooled for meta-analysis using standard mean difference (SMD) and a random-effects model. Heterogeneity was evaluated with I² and sensitivity analyses were performed. The certainty of evidence was assessed with GRADE criteria. Our primary outcome was pain; secondary outcomes include mobility and adverse events.

Results: 1180 articles were screened, 11 eligible studies were identified and 9 (627 participants) were pooled for meta-analysis. Pain at rest was lower in the calcitonin group than the control group at week 1 (SMD -1.11, 95% confidence interval (CI) -1.95 to -0.26, I² = 92%). Sensitivity analysis showed that the route of administration influenced this effect: the SMD for calcitonin nasal spray was -1.88 (95% CI -2.31 to -1.44, I² = 53%) compared to -0.35 (95% CI -0.86 to 0.17, I² = 60%) for intramuscular injection. Improvements in mobility were observed at week 4 (SMD -0.48, 95% CI -0.79 to -0.17, I² = 45%). The risk of adverse events was increased with calcitonin (Risk Ratio 2.72, 95% CI 0.90 to 8.17, I² = 41%) and consisted of flushing, headache, dizziness and gastrointestinal effects. The overall certainty of evidence was downgraded to low due to concerns over risk of bias and inconsistency between studies. Conclusion: Calcitonin, particularly as a nasal spray, is beneficial and safe for treating acute pain associated with OVCFs. Further studies are needed to improve the certainty of evidence.

Keywords: back pain, elderly, vertebral fracture

Characteristics of emergency department visits by community-dwelling older adults who screened positive for elder abuse during home care assessments

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Introduction: Elder abuse is infrequently detected in the emergency department (ED) and less than 2% are reported to proper law authorities by ED physicians. This study aims to examine the characteristics of community-dwelling older adults who screened positive for elder abuse during home care assessments and the epidemiology of ED visits by these patients relative to other home care patients.

Methods: This study utilized a population-based retrospective cohort study of home care patients in Canada between April 1, 2007 and March 31, 2015. Standardized, comprehensive home care assessments were extracted from the Home Care Reporting System. A positive screen for elder abuse was defined as at least one of these criteria: fearful of a caregiver; unusually poor hygiene; unexplained injuries; or neglected, abused, or mistreated. Home care assessments were linked to the National Ambulatory Care Reporting System in the regions and time periods in which population-based estimates could be obtained to identify all ED visits within 6 months of the home care assessment.

Results: A total of 30,413 from the 2,401,492 patients (1.3%) screened positive for elder abuse during a home care assessment. They were more likely to be male (40.5% versus 35.3%, p < 0.001), to have a cognitive impairment (82.9% versus 65.3%, p < 0.001), a higher frailty index (0.27 versus 0.22, p < 0.001) and to exhibit more depressive symptoms (depression rating scale 1 or more: 68.7% versus 42.7%, p < 0.001). Patient who screened positive for elder abuse were less likely to be independent in activities of daily living (41.9% versus 52.7%, p < 0.001) and reported having fallen more frequently (44.2% versus 35.5%, p < 0.001). Caregiver expressing distress was associated with elder abuse (35.3% versus 18.3%, p < 0.001) but not a higher number of hours caring for the patient. Victims of elder abuse were more likely to attend the ED for low acuity conditions (Canadian triage and acuity scale (CTAS) 4 or 5). Diagnosis at discharge from ED were similar with the exception of acute intoxication that was more frequent in patients who are victims of abuse. Conclusion: Elder abuse is infrequently detected during home care assessments in community-dwelling older adults. Higher frailty index, cognitive impairment, depressive symptoms were associated with elder abuse during homecare assessments. Patients who are victims of elder abuse are attending EDs more frequently for low acuity conditions but ED diagnosis at discharge, except for acute intoxication, are similar.

Keywords: elder abuse, epidemiology, neglect