

Collaborative Center Proposed Initiative: Retrospective Review of Tobacco use, COPD and DVT in Patients with or without SSRF

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Objectives

This is a collaborative center endeavor to retrospectively review multiple sites' deidentified prospective trauma registry data to compare surgical stabilization of rib fracture (SSRF) and NONOP patients using matched cohorts.

Specifically, we wish to investigate whether patients with COPD with and without tobacco use had better outcomes with SSRF compared to non-operative (NONOP) patients.

Introduction

The amount of research for rib fracture management has exponentially increased over the last several years. Surgical stabilization of rib fractures (SSRF) reduces mortality, shortens length of stay (LOS), decreases the risk for pneumonia and tracheostomy and is associated with decreased pain compared to non-operative (NONOP) management. Yet, there is little research that demonstrates the outcomes of frail patients after rib fractures, if they have better outcomes with or without SSRF.

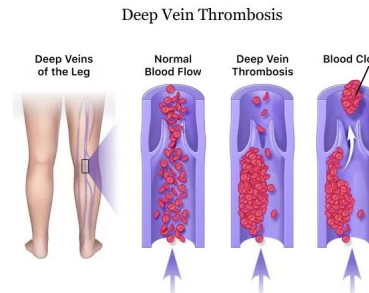
Chronic Obstructive Pulmonary Disease (COPD) is a known risk factor for in-hospital mortality after rib fractures for both NONOP management and SSRF, but correlation with tobacco use is often not included.

Smoked Ribs

The relationship between SSRF and deep vein thrombosis (DVT) has been contradicted in different studies, with some revealing increased risk in SSRF and others decreased risk. Further, the relationship between DVT, tobacco use and SSRF is underreported.



Tobacco use is associated with higher frailty in SSRF patients, potentially attributing to adverse outcomes in frail patients. However, with NONOP rib fracture management, numerous studies have found that smokers have lower in hospital mortality rates. Revealing any correlations between tobacco use, DVT, COPD and SSRF may better help us allocate resources towards SSRF.



Methods

This is a multicenter study being conducted at Saint Francis Hospital in partnership with several other Chest Wall Injury Society (CWIS) collaborative sites.

This study will include data collected from rib fracture patients who have been admitted to Saint Francis Hospital and other participating centers. Participating centers will contribute data upon IRB approval, and a clinical database containing only deidentified data will be created, consisting of all patients meeting study criteria.

This study is open and actively enrolling participating sites.

