Acute Care Surgery and Munchausen Syndrome: what can we learn from the data?

Anne R. Stoklosa BS*, Lorin M. Towle-Miller MA †, Ajay A. Myneni MBBS, PhD, MPH*, Iman Simmonds MD, MPH*, Justin Gray MD*, Paula Del Regno MD**, Katia Noyes PhD, MPH ‡, Aaron B. Hoffman MD FACS*

University at Buffalo, Buffalo, New York, USA; *Department of Surgery, Jacobs School of Medicine and Biomedical Sciences, †Department of Biostatistics, School of Public Health and Health Professions, **Department of Psychiatry, ‡Division of Health Services Policy and Practice, Department of Epidemiology and Environmental Health, School of Public Health and Health Professions

Introduction

- Taking care of patients with Munchausen syndrome (MunS) can be an intimidating balancing act between caring for the patient and doing no harm, but based on the nature of this disease, patients are unlikely to reveal this diagnosis to the provider.[1]
- They may present with a long, unexplained course of disease with multiple operations. This can be further complicated by lack of access to the patient's history and the willing acceptance of repeating imaging and invasive therapeutic procedures.[2-3]
- Patients with MunS often gain hospital admission and undergo invasive procedures and/or surgeries, but there are currently no systemic studies that examine the type and number of procedures that are performed among all MunS patients. It is also unknown if a diagnosis of MunS improves the clinical workup leading to decreased health care utilization and increased patient safety.

Aim of Study:

- To describe patterns of procedural and surgical care utilization among patients diagnosed with MunS.
- To compare these parameters pre and post-MunS diagnoses as well as with patients not diagnosed with MunS.

Methods

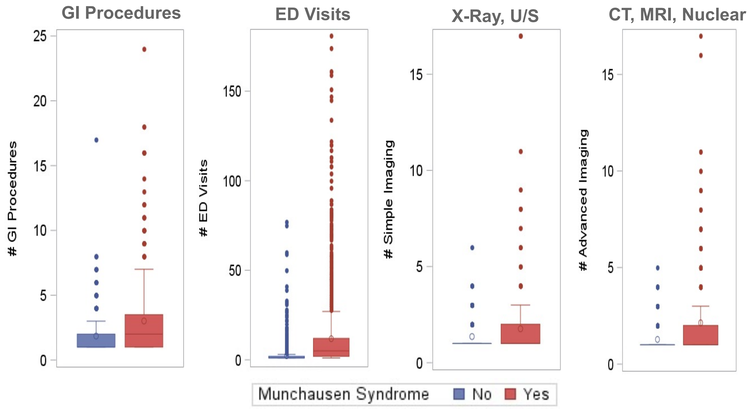
- Using New York's Statewide Planning and Research Cooperative System registry of inpatient, emergency, and ambulatory hospital utilization (SPARCS), we identified adult patients (ages 18-65) with MunS based on ICD-9 (301.51, 300.16, 300.19) and ICD-10 (F68.10-F68.13) diagnosis codes (n=2,028).
- The matched sample was identified by using a 25% random sample from SPARCS following inclusion criteria for those without a Munchausen's diagnosis. A 1:2 Propensity Score Match by year was performed based on age, gender, insurance, Elixhauser Mortality Score, substance abuse, and diagnosis of psychosis.
- We compared utilization of gastro-intestinal, gynecological and genitourinary imaging and surgical procedures before and after first MunS diagnosis as well as with patients without MunS.

Results

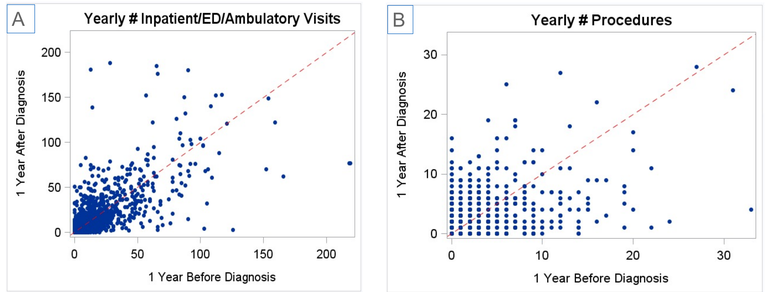
Demographics of patients identified with Munchausen syndrome (F68.10-68.13, 301.51, 300.16, 300.19), n=2,028, and 5% general population random sample from SPARCS database (non-MunS), n=2,709,287

		MunS	Non-MunS
Gender			
	Male	38.1% (n=773)	42.7% (1,157,065)
	Female	61.9% (n=1,255)	57.3% (1,552,144)
Age			
	Mean (SD)	41.3 y (13.0)	41.2 y (13.8)
Race			
	White	58.5% (n=1,177)	52.9% (1,403,540)
	Black/African American	21.0% (n=423)	20.6% (545,221)
	Other	20.4% (n=411)	26.5% (703,043)
Insurance			
	Medicaid	57.6% (n=1,156)	21.4% (505,078)
	Medicare	11.9% (n=239)	4.1% (97,910)
	Private/Other	23.7% (n=476)	60.9% (1,439,012)
	Uninsured	8.9% (n=179)	13.6% (322,327)
Psychiatric Comorbidities			
	Depression	20.4% (414)	2.1% (56,641)
	Alcohol Abuse	8.7% (176)	2.2% (59,872)
	Drug Abuse	21.8% (443)	1.6% (42,555)
	Psychosis	16.9% (343)	1.7% (45,923)

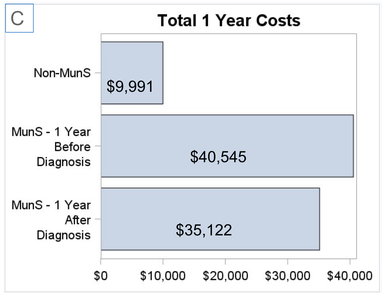
Utilization comparison between MunS and non-MunS patients



MunS patients had significantly higher annual care utilization than non-MunS patients across all categories of services. All results shown have statistically significant differences with p-values <0.01.



There is no significant difference in the pattern of health services utilization before and after MunS diagnosis. (A) The overall count of inpatient, ED, and ambulatory visits/admissions did not decrease after diagnosis with MunS. (B) Gastrointestinal, genitourinary, and gynecology procedures are included. The diagonal line represents no change.



(C) The median accumulated 1-year hospital **costs are approximately 4.5 times higher** among patients diagnosed with MunS compared to those without MunS.

Outcomes:	MunS	Non-MunS
Inpatient Admissions (mean)	4.6	0.9
ED Visits (mean)	10.9	1.7
# Different Hospitals (mean)	4.5	1.6
% with ≥ GI procedure/surgery	24.9%	11.2%
% with ≥ diagnostic imaging test	36.8%	9.5%

Lessoned Learned

- Currently, diagnosing a patient with MunS **does not significantly improve** their overall healthcare utilization.
- We must first understand characteristics, behaviors, and patterns of use to increase provider awareness that would then result in timely diagnosis and referral to behavioral treatment.
- **Normalizing data sharing** between EMR systems and providing better protection to acute care surgeons and ER physicians against medical malpractice litigations could potentially:
  - Reduce overtreatment & increase safety for patients
  - Improve continuity of care
  - Decrease healthcare waste
- Given MunS patients' strong preference for unnecessary tests, procedures, and even surgery, involving psychiatry consultation and **developing multi-disciplinary teams in the ED starting at the consent process** may be necessary to improve quality of care for this population.

References

[1]Diagnostic and statistical manual of mental disorders : DSM-5. American Psychiatric A, American Psychiatric Association DSMTF, editors. Arlington, VA: American Psychiatric Association; 2013.

[2]Hamilton JC, Eger M, Razzak S, Feldman MD, Hallmark N, Cheek S. Somatoform, factitious, and related diagnoses in the national hospital discharge survey: addressing the proposed DSM-5 revision. Psychosomatics. 2013;54(2):142-8.

[3]Bass C, Halligan P. Factitious disorders and malingering: challenges for clinical assessment and management. Lancet. 2014;383(9926):1422-32.

University at Buffalo The State University of New York

Please direct comments and questions to:
Anne R. Stoklosa
annestok@buffalo.edu