CHOKING RISK IN MENTAL ILLNESS

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This presentation will:

• Review the literature on choking risk in mentally ill patients

• Describe risk factors for choking in mentally ill patients

• Present recommendations that may minimize or prevent choking events
CHOKING IS A RISK

- Variance reports reviewed over 2 calendar years
- Result: 15 choking events
- One death due to choking
- Choking much more common than cardiac events
- We have used AED (Automated External Defibrillator) once over 3 calendar years
CHOKING-RISK FACTOR FOR DEATH

- Mortality rate for choking in the general population: 1.9 per 100,000 incidents
- Mortality rate for choking in Chinese psychiatric inpatients: 15 per 100,000 (8 times the rate)
- Mortality rate for choking in Irish psychiatric inpatients: 21 per 100,000 (11 times the rate)
LITERATURE REVIEW

- Not very extensive
- Articles published on topic are mostly international
LITERATURE REVIEW

Study in Italy:

• Choking incidents recorded over 18 months among psychiatric population in 4 inpatient facilities
• 31 incidents recorded involving 18 patients
• 1 fatality
• Most common reasons: Bad eating habits (tachyphagia); Parkinson related swallowing disorders; Neurological disorders (Intellectual Disability, Epilepsy, Dementia) [1]
LITERATURE REVIEW

Study in Ireland:

• Determined number of deaths caused by choking in a 10 year period in Irish psychiatric inpatient population

• 14 of 218 unexpected deaths between 1983-1992 due to choking

• Factors: Tachyphagia; EPS symptoms, especially Parkinsonism; 50% of patients were obese [2]
LITERATURE REVIEW

Study in China:

- Determined rate of choking incidents and factors in Chinese psychiatric inpatients in Hong Kong from 1996-2007
- 19 choking incidents in 17 patients, with one death
- Most common diagnoses: Schizophrenia, Dementia, Neurological (Epilepsy, CVA)
- Typical antipsychotics and anticholinergics were most commonly prescribed medications [3]
LITERATURE REVIEW

Study in Australia:

• Cases of people who died due to choking linked to public mental health case register
• Schizophrenia, Organic Disorder associated with elevated rates of choking deaths
• Risk of choking death in Schizophrenic patients 30 times greater than general population
• Role of antipsychotics in worsening choking risk in mentally ill patients [4]
LITERATURE REVIEW

Study in the United States:

• Reviewed cause of death for all inpatients of large state hospital between 1969-1977
• 49 deaths attributed to “asphyxia”
• Three distinct categories:
  1. Older patients with serious physical illness (40%)
  2. Patients who had seizures (31%)
  3. Patients who choked to death (29%)
United States Study (cont’d):

- Majority had primary diagnosis of Schizophrenia
- Initiation of medication monitoring with drop in polypharmacy along with use of (then) newly described Heimlich maneuver led to virtual elimination of deaths due to choking [5]
• Schizophrenia patients have high incidence of tachyphagia

• One study noted schizophrenic patients have abnormality in their swallowing mechanism irrespective of getting any medications. This study has not been replicated [6]

• Pica behavior (persistent and culturally and developmentally inappropriate ingestion of non-nutritive substances) increases risk
CHOKING RISK FACTORS

What risk factors are described in the literature?

- Tachyphagia
- Poor dentition
- Impaired swallowing (?schizophrenia)
- Parkinsonism
- Tardive Dyskinesia
- Obesity
- Age (>60)
- Pica Behavior
IMPAIRED SWALLOWING

Physiologic mechanisms associated with impaired swallowing:

• Dopamine Blockade – can produce central and peripheral impairments in swallowing
• Anticholinergic effects – lead to impaired esophageal motility and dry mouth
• Impaired gag reflex
• ? Impaired swallowing mechanism in patients with schizophrenia
Ms. A is a 62 year old female with Schizophrenia

Admitted due to increasing paranoia, medication non-adherence

Medically compromised (Diabetes, GERD, Hypothyroidism, Dyslipidemia, HTN, Obesity [Body Mass Index = 34.75])
CASE PRESENTATION

• Initially non-adherent to medications and not eating
• Began taking medication Day # 3
• Choked on hot dog on Day # 3, and expired
• Family member shared with staff that patient had history of “shoving food in her mouth” and had “bad teeth”
How Many Risk Factors Did Ms. A Have?

- Tachyphagia
- Poor dentition
- Obesity
- Age > 60
- ? Impaired swallowing
- 5 of 8 risk factors (did not have T.D., Parkinsonism of Pica behavior)
RECOMMENDATIONS

Recommendations to minimize choking events:

• Train staff regularly on emergency First Aid for choking victims, especially the proper use of the abdominal thrust (Heimlich Maneuver)

• Be aware of patients at higher risk for choking
RECOMMENDATIONS

• Assess patients for a history of choking incidents or presence of swallowing problems (especially in patients at risk for choking)

• Supervise meals, allow more time for meals, and instruct staff to look for patients displaying dysphagia or tachyphagia

• Remember the three C’s: Clearing the throat, coughing, choking as precursors to a possible choking event
RECOMMENDATIONS

• Consider a swallowing evaluation by a speech therapist in patients manifesting dysphagia

• Avoid polypharmacy of drugs with anticholinergic and/or potent dopamine blocking effects
RECOMMENDATIONS

• Teach safe eating habits to patients at risk for choking
• Contact outpatient care providers of patients at risk for choking; inform them of the need for education on safe eating habits, a dietary evaluation, and/or a swallowing evaluation
• Ensure clear communication between Nursing staff and Registered Dietitians when nutrition screens and reviews point to significant risk factors for choking
QUESTIONS?
REFERENCES

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