ARTICLE:

- **Citation:**
- **Country:** United Kingdom
- **Funding Sources:** Not mentioned

PURPOSE:

- **Research Question(s):** What is the current evidence regarding management of esophageal soft food bolus obstruction, as no guidelines currently exist for the management of this condition.
- **Hypothesis:** This was a literature review, designed to review various studies regarding this issue, as well as evaluate the efficacy of several commonly cited treatments for esophageal soft food bolus obstruction. As such, there was no specific hypothesis outlined by the authors.

DESIGN:

- **Study Design:** Literature review using multiple medical literature databases. No mention was made regarding the selection process of the search hits. It is unknown whether all articles that were identified in the search were used, or whether there was inclusion and exclusion criteria.
- **Dependent / outcome Variable(s):** In the studies that were reviewed, the outcomes all centered around resolution or disimpaction of the foreign body, though this was not well defined (visual evidence of disimpaction vs patient reported symptom relief).
- **Independent / research Variable:** Various treatments were measured against “watchful waiting” or placebo.
  - These treatment options included:
    - Hyoscine butylbromide
    - Gas forming agents
    - Glucagon
    - Benzodiazepines
    - Opioids
    - Surgery

SETTING / SUBJECTS:
• **Research Setting:** Conducted at the Singleton Hospital Library Information Department
• **Subjects:**
  o **Study population:** Not specifically mentioned for each study reviewed.
  o **Inclusion / Exclusion criteria:** The criteria for the studies included in the review was not outlined, a significant weakness of this paper.
  o **Number (control / intervention groups):**
    • Hyoscine butylbromide: 3 studies, 74 patients
    • Gas forming agents: not mentioned
    • Glucagon: 2 studies
      • 92 in the first study were all given glucagon
      • 222 patients in the second, 106 given glucagon, 116 placebo
    • Benzodiazepines: 2 studies, 1 mentions 27 patients given diazepam
    • Opioids: no studies identified
    • Surgery: 4 retrospective cohort studies, 1 case series. Numbers not mentioned.
  o **Demographics:** Not mentioned
  o **Attrition:** Not mentioned

**METHODS:**
• Literature review using searches of the following databases:
  o Cochrane Library
  o National Center for Biotechnology Information
  o US Library of Medicine Resources
• Search strategies:
  o (oesophagus OR esophagus) AND buscopan
  o (oesophagus OR esophagus) AND (cola OR coke OR coca-cola OR effervescent OR carbonated OR gas forming)
  o (oesophagus OR esophagus) AND glucagon
  o (oesophagus OR esophagus) AND (benzodiazepines OR benzodiazepine)
  o (oesophagus OR esophagus) AND (opioid OR opioids OR morphine OR codeine)
  o (oesophagus OR esophagus) AND endoscopy AND bolus
  o (oesophagus OR esophagus) AND (bolus OR impaction) AND (complication OR complications OR perforation)

**DATA ANALYSIS:**
• The results of the studies reviewed were briefly presented for their bottom line conclusions.
• There was a measurement of complications of medical and surgical treatment, identified as perforations or lacerations as a percent of total cases reviewed.
RESULTS:
• Brief answers to research questions: There does not appear to be a single medical management strategy that is superior to any other, nor more effective statistically than a “watch and wait” approach.

• Additional findings: Rigid and flexible esophagoscopy are effective treatments, but do carry risks. Evidence was found to suggest that surgical intervention performed in the first 24 hours from impaction time reduces incidence of complications.

• Limitations: Significant limitations exist in this review. First, there is simply a paucity of research regarding this topic, and no strong double blind RCT to review. Each study identified was not a large multicenter trial, and often only studied a handful of patients, thus were underpowered. Additionally, there was no mention in this review regarding their selection process for the studies they included. They also do not mention whether they consider each of the studies to be strong or weak. The results are simply presented.

IMPLICATIONS FOR PRACTICE:
• Applicable to this clinical practice: This was an interesting review, in that it outlined the current lack of evidence for any of the common treatments for esophageal soft food bolus. What little evidence does exist seems to indicate that none of the medical treatments are significantly effective. This is useful in clinical practice, in that treatment may not be needed, and potential side effects can be avoided by employing the watchful waiting approach.

• Feasible (cost, resources, etc): Any of the interventions can and are easily implemented. Most involve a simple one dose medication. Surgical services (esophagoscopy) are commonly available at many tertiary centers, including MMC.

• Clinically Relevant: Again, no medical interventions reviewed showed significant efficacy so far with the limited evidence available.

LEVEL OF EVIDENCE / DECISION FOR USE:
• There is a need for a strong, multicenter double blind randomized controlled trial for the interventions identified as well as a study to identify at what point endoscopy should be employed.

• Level of Evidence: Difficult to assign to this literature review. Meta-analysis of non-randomized controlled trials. Closely fits with IIa: Evidence obtained from at least one well-designed controlled study without randomization.