



Self-Expanding Metal Stents (SEMS)

Procedure Guide

General Information

This DVD and its contents are intended to provide you with a tool for orientation to GI procedures, competency reinforcement, and team building within your facility, in terms of this procedure. SGNA recognizes that GI/endoscopy units may utilize different equipment for certain procedures and may define the roles of their team members differently.

Disclaimer

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Description

A wire mesh configuration which is constrained and mounted on a delivery catheter. The purpose of the stent is to provide palliative treatment of malignant gastrointestinal strictures (e.g., esophageal, colonic).

Indications

1. Malignant esophageal strictures
2. Tracheo-esophageal fistulas
3. Malignant colonic strictures
4. Gastroduodenal obstruction in patients not suitable for gastric bypass
5. Biliary obstruction

Contraindications

1. Any medical condition that takes priority over the prosthesis
2. Cancers less than 2 cm below the upper esophageal sphincter
3. Invasion with compression of the trachea and/or bronchus
4. Recent chemotherapy (relative - increases risk of infection)
5. Inadequate dilation of the stricture
6. Long, tortuous strictures

Pre-Procedure Assessment/Care

Refer to Standard Considerations in the SGNA Procedure Manual

Patient/Family Teaching

1. Refer to Standard Considerations in the SGNA Procedure Manual
2. The physician must emphasize that this is considered a permanent stent
3. Patients may have sensation of chest pain or the presence of a foreign body
4. If the stent bridges the LES, the patient will require anti-reflux measures

Equipment

1. Refer to Standard Considerations in the SGNA Procedure Manual
2. Stents
3. Wire-guided dilators or hydrostatic balloons
4. Guidewire
5. Contrast, injector needle or radiopaque markers
6. Fluoroscopy, dosimeters, shields

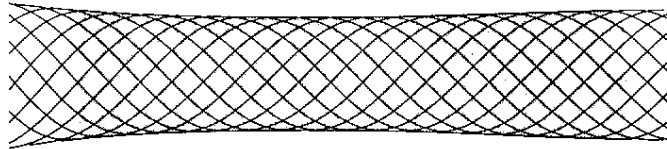


Figure 19: Self-expanding metal stent

Responsibilities During The SEMS Procedure

1. Refer to Standard Considerations in the SGNA Procedure Manual
 2. Review stent deployment procedure and responsibilities
 3. Prepare for pre-stent placement dilation using fluoroscopy
 4. Stent Placement:
 - a. The scope is passed and the stricture is visualized
 - b. Pre-placement dilation may be performed
 - c. Radiopaque markers are used to delineate proximal and distal margins of stricture
 - d. A guidewire needs to be placed through the stricture prior to endoscope removal.
Note: That a biliary wall stent goes over the guidewire, through the scope, and into the bile duct.
 - e. The stent placement device is advanced over the guidewire by the physician and is deployed according to manufacturer's instructions; after stent is correctly positioned
and fully deployed, the delivery system and guidewire are removed
- NOTE: Allow sufficient time for stent expansion prior to withdrawing deployment device

Potential Complications

1. Hemorrhage
2. Perforation
3. Aspiration
4. Delayed complication:
 - a. Perforation of esophagus
 - b. Stent obstruction secondary to tumor ingrowth through the stent, tumor overgrowth at the stent ends
 - c. Stent migration
5. Foreign body

Post-Procedure Assessment/Care

1. Refer to Standard Considerations in the SGNA Procedure Manual
2. Observe patient for chest pain and aspiration
3. Monitor for abdominal distention
4. Instruct patient in signs and symptoms of stent obstruction

References

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