

The following slides are from a
presentation given by
H. Worth Boyce, M.D. on
Endoscopic Lumen Restoration at the
8th OESO World Organization for
Specialized Studies on Diseases of the Esophagus.



Endoscopic Lumen Restoration for Complete Pharyngo-Esophageal Obstruction Following Chemo-Radiation Therapy for Head and Neck Cancer

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Clinical Scenario

Total Pharyngo-Esophageal Occlusion

- Patient with head/neck Cancer
 - Tongue, Pharynx, Larynx
- Treated – radiation & chemotherapy,
± radical neck dissection
- PEG feeding tube nutrition
- Inadequate swallowing efforts
- No per oral dilation



Head and Neck Carcinoma

Type and Location

- SCC
 - Tongue 3
 - Oropharynx 1
 - Palate/Nasopharynx 2
 - Larynx 5
- AdenoCa.
 - Thyroid 1



Physician Referral Pattern

- Typically delayed several months
- Physician specialty: oncology, radiation therapy, otolaryngology
- Usually incomplete evaluation
 - No modified barium swallow
 - Inadequate endoscopic evaluation
 - Occasional endoscopic perforation
- Unaware of lumen restoration procedure



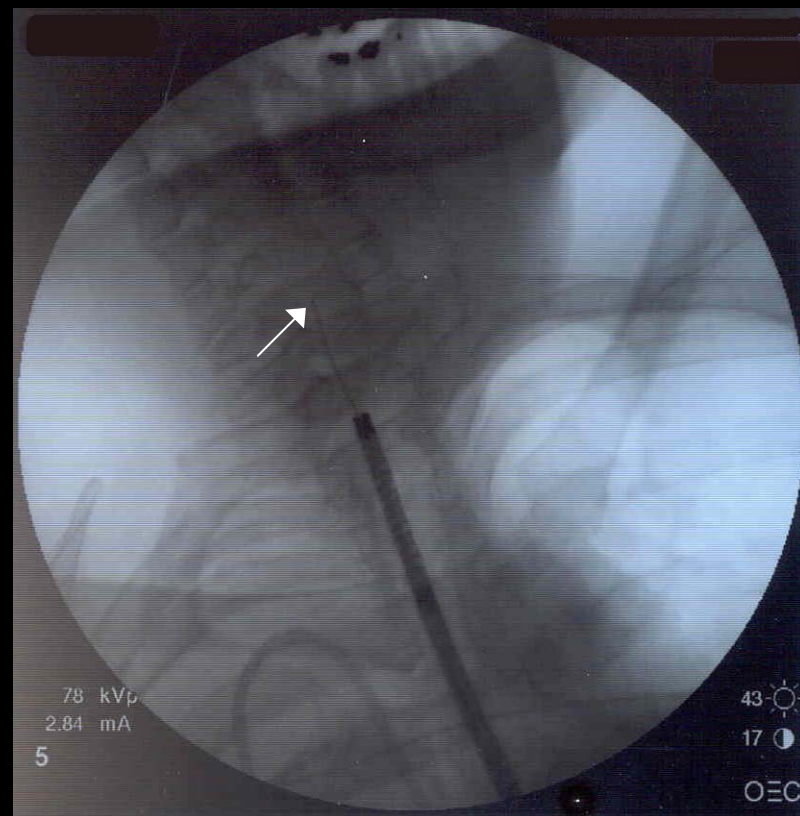
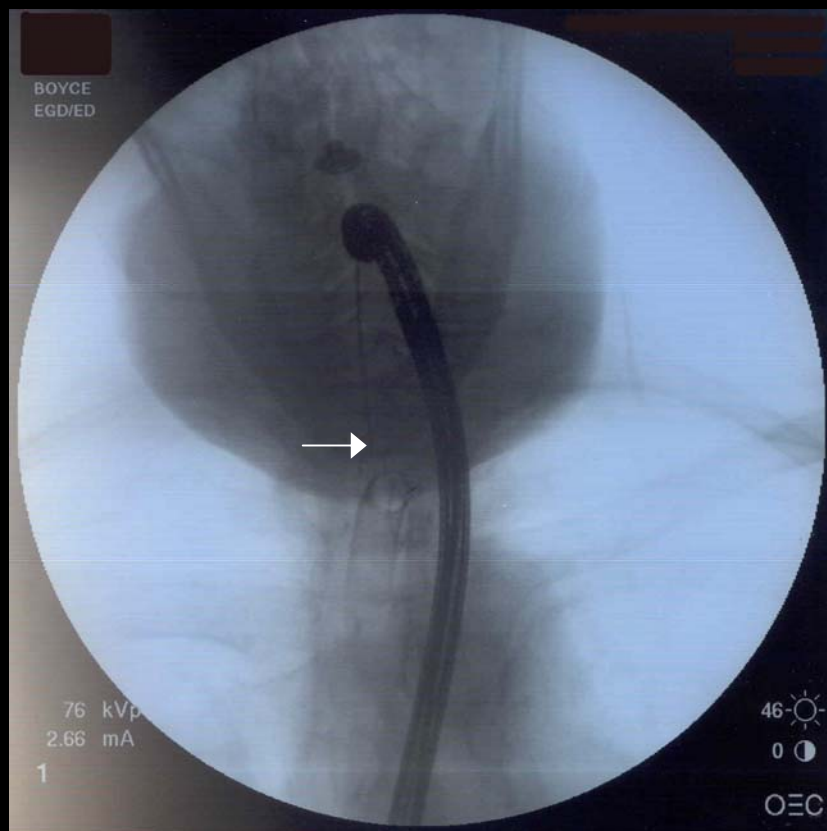
Patient Education Preparation

- Review history, radiographic studies
- Treatment options for aphagia
- Stages, techniques of Endoscopic Lumen Restoration (ELR)
- Initial and long term risks
- Duration of sequential dilation
- Uncertainties of oropharyngeal neuromotor function
- Need for formal swallow rehabilitation

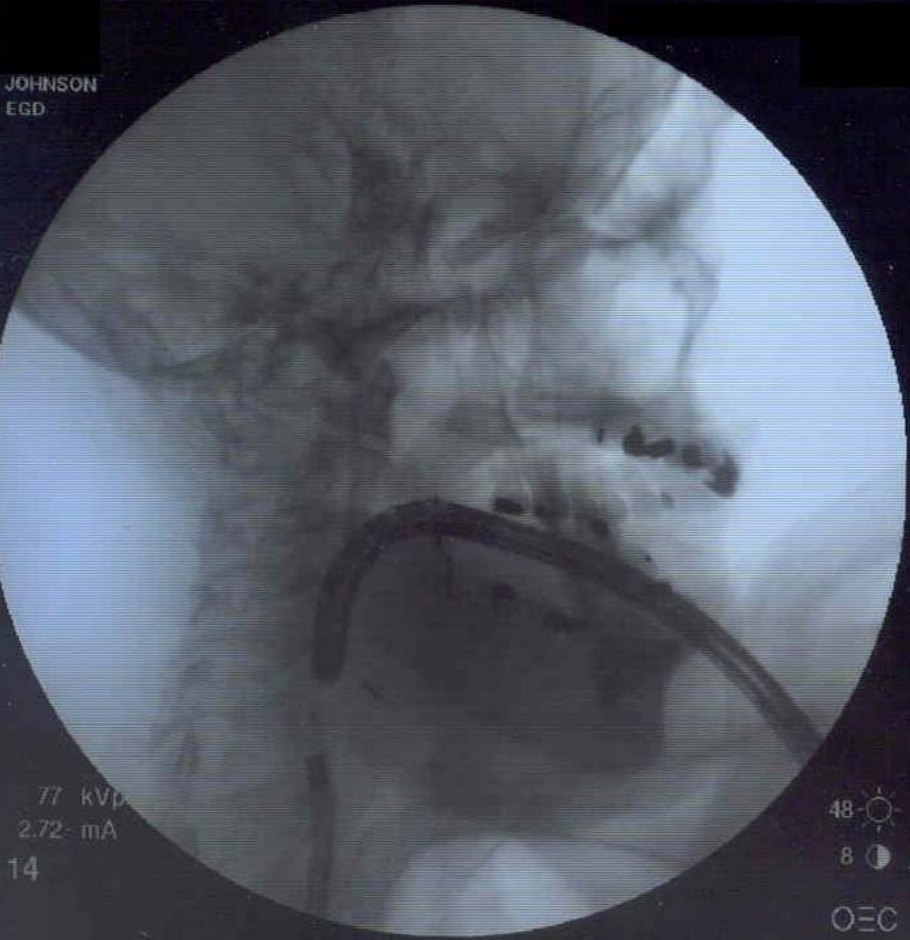


ELR Procedure Stages

- Patient education
- Limited barium study
 - Speech Pathologist/ Radiologist
- Antegrade – retrograde endoscopy
 - Esophagologist / Gastroenterologist
- ELR – general anesthesia/ fluoroscopy
 - Esophagologist – retrograde
 - Otolaryngologist – antegrade
- Establish lumen access



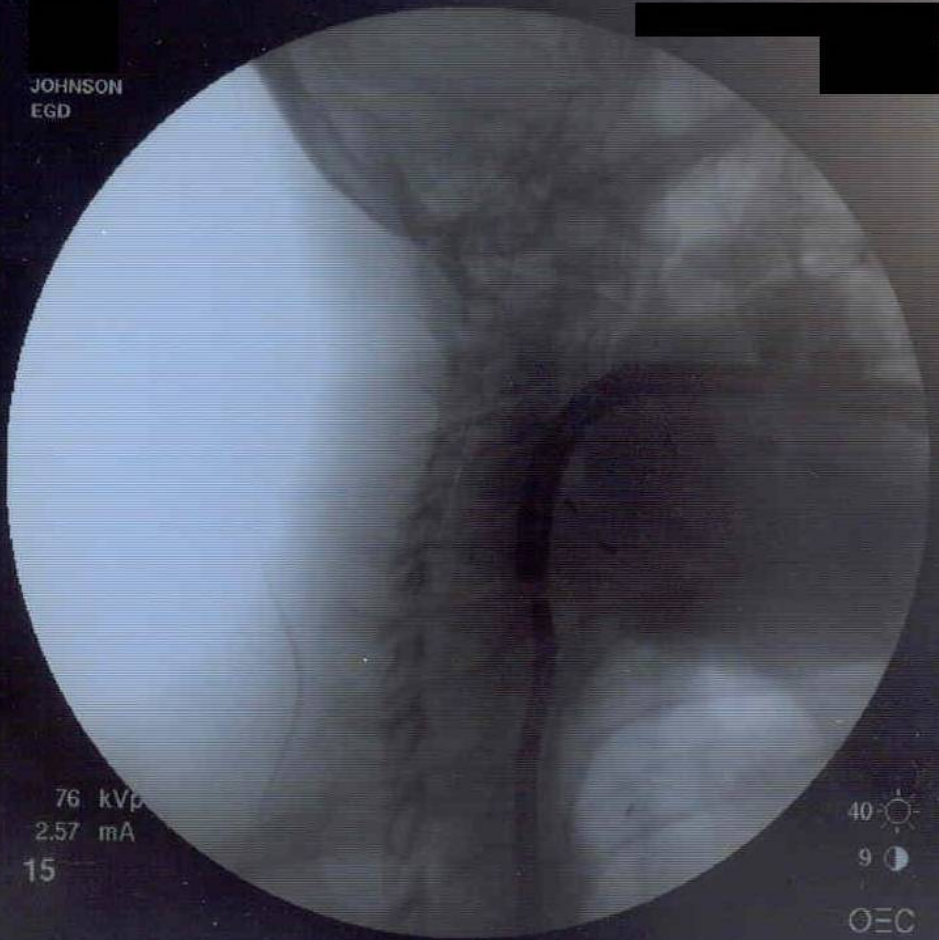
JOHNSON
EGD



77 kVp
2.72 mA
14

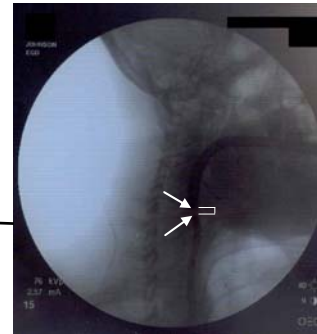
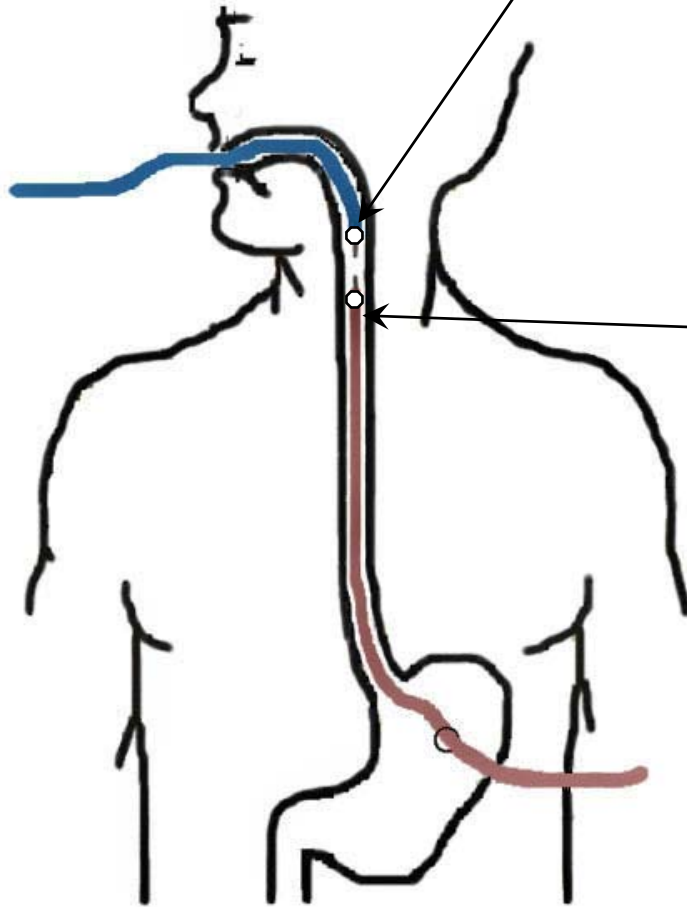
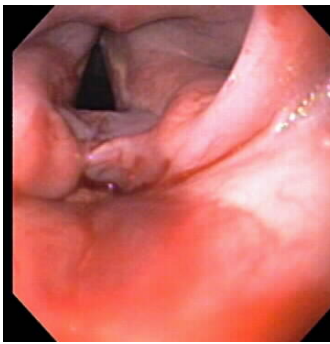
48 
8 
OEC

JOHNSON
EGD



76 kVp
2.57 mA
15

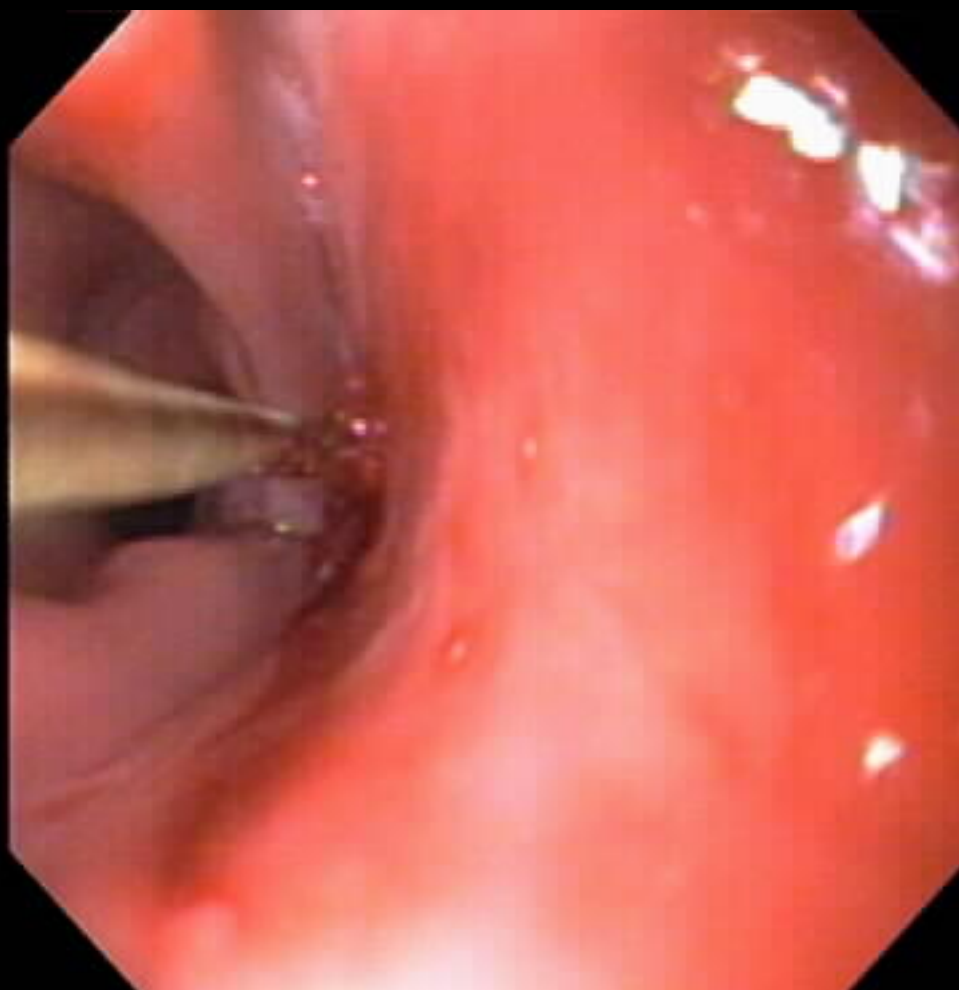
40 
9 
OEC

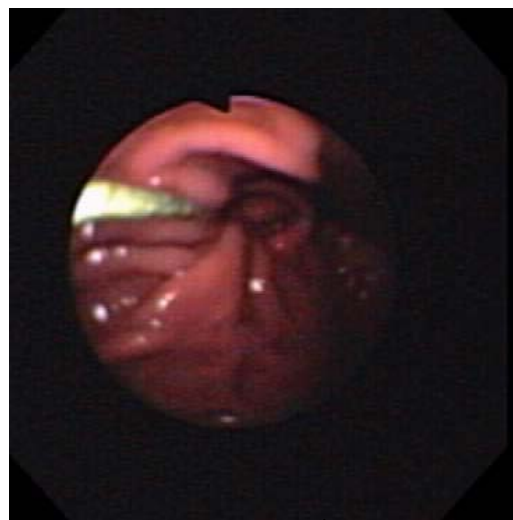
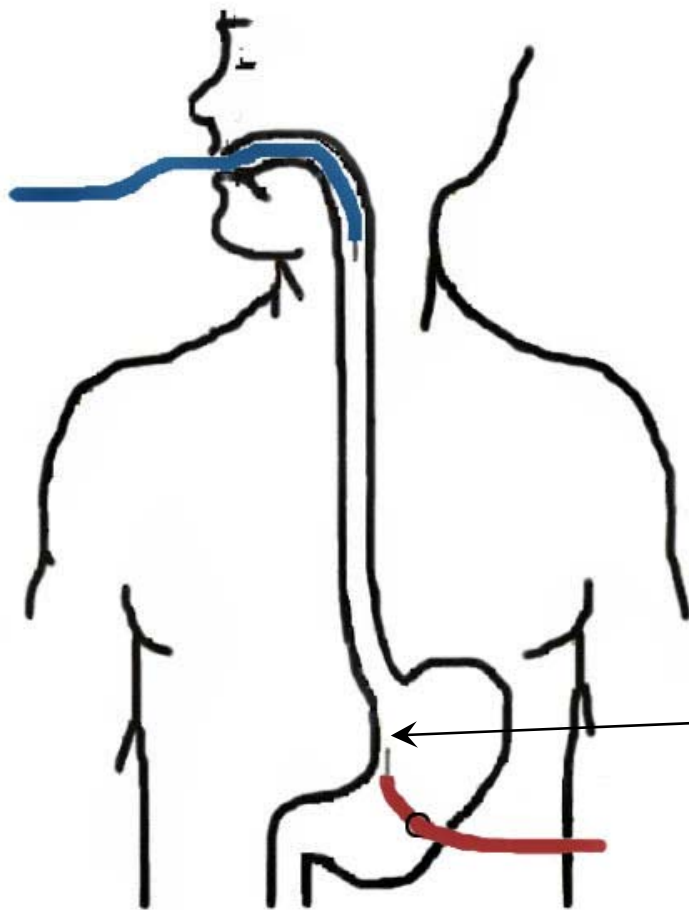




Performance of ELR

1. Remove PEG tube
2. Retrograde endoscopy (4.9 mm)
3. Antegrade endoscopy (rigid)
4. Simultaneous probing
 - A-P, lateral, oblique fluoroscopy
5. Puncture options: wires, forceps, rigid suction tube, needle

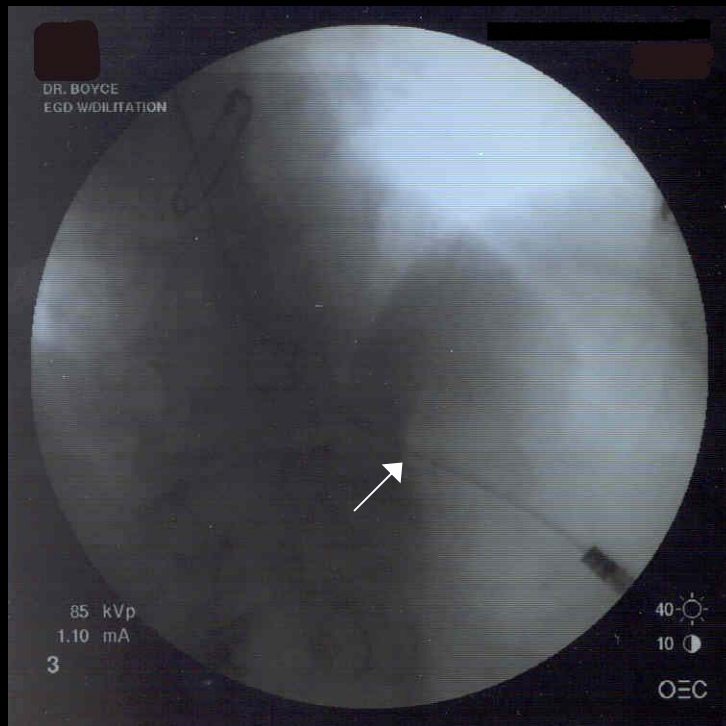


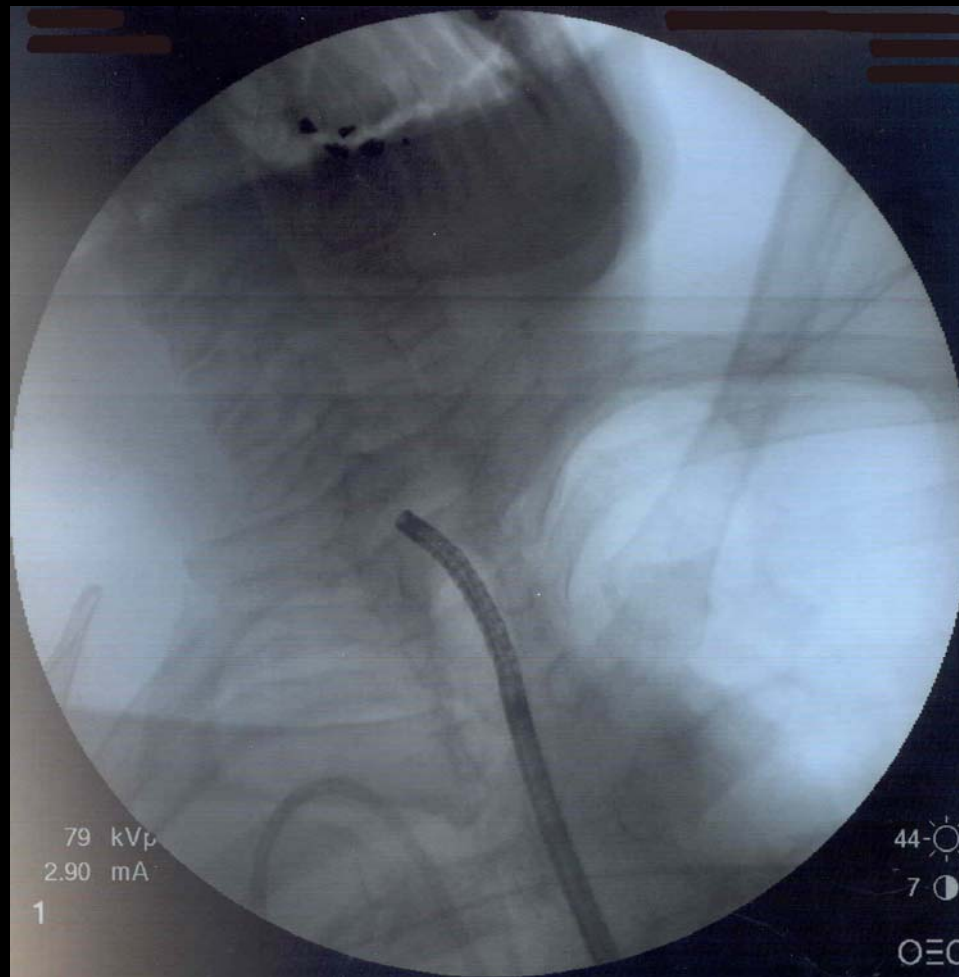


DR. BOYCE
EGD W/DILATION

85 kVp
1.10 mA
3

40
10
OEC





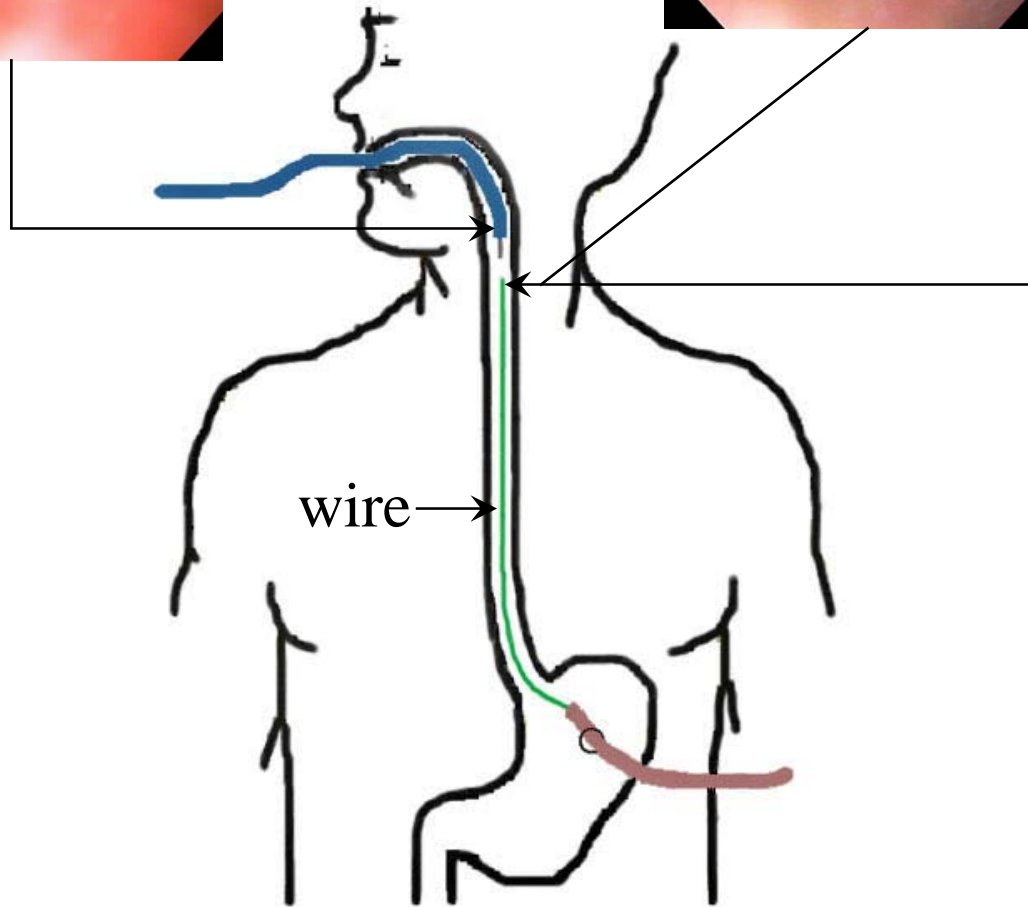
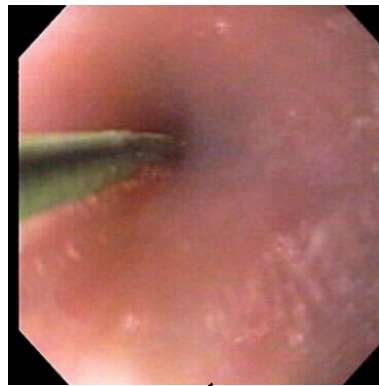
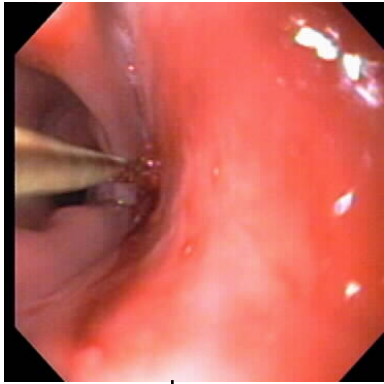
79 kVp
2.90 mA

1

44 ☀

7 🌙

OEC



DR BOYCE, W
RIGID ESOPHOSCOPY

56 kVp
1.12 mA

7

DR BOYCE, W
RIGID ESOPHOSCOPY

71 kVp
2.30 mA

8

49
0
OEC

DR BOYCE, W
RIGID ESOPHOSCOPY

71 kVp
2.30 mA

9

DR BOYCE, W
RIGID ESOPHOSCOPY

71 kVp
2.30 mA

10

50
0
OEC

BOYCE
ESOPHAGEAL DILATION

86 kVp
3.60 mA

7

61 
25 

OEC

285157
BOYCE
ESOPHAGEAL DILATION

87 kVp
3.70 mA

9

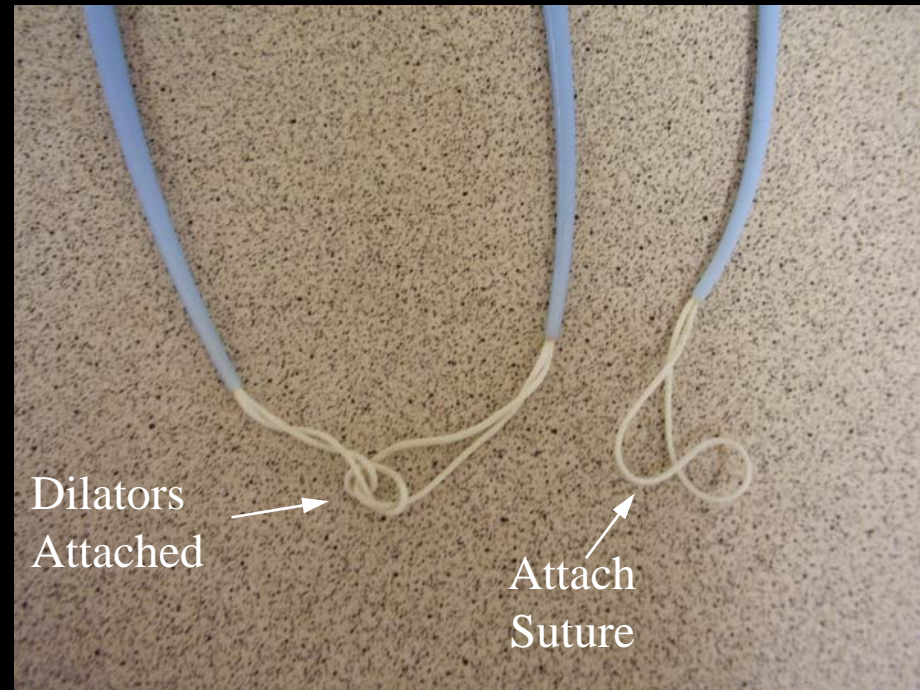
50 
12 

OEC



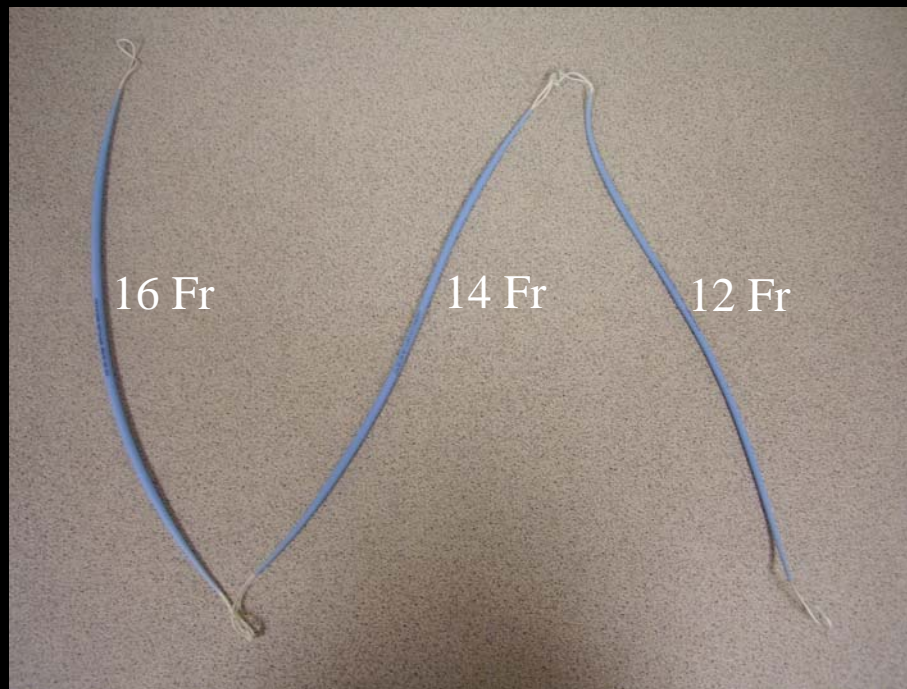
Accessories for ELR

- Guide wires
 - Savary, 0.038 in., glide wire
- Silk suture - #3 or 4
 - Not 3-0 or 4-0!
- Biopsy forceps – flexible/rigid
- Rigid: suction tube, large needle on long tube, grasping & biopsy forceps
- Dilators: Tucker retrograde, Savary



12-30 French
4-10 mm

Tucker
Retrograde
Dilators



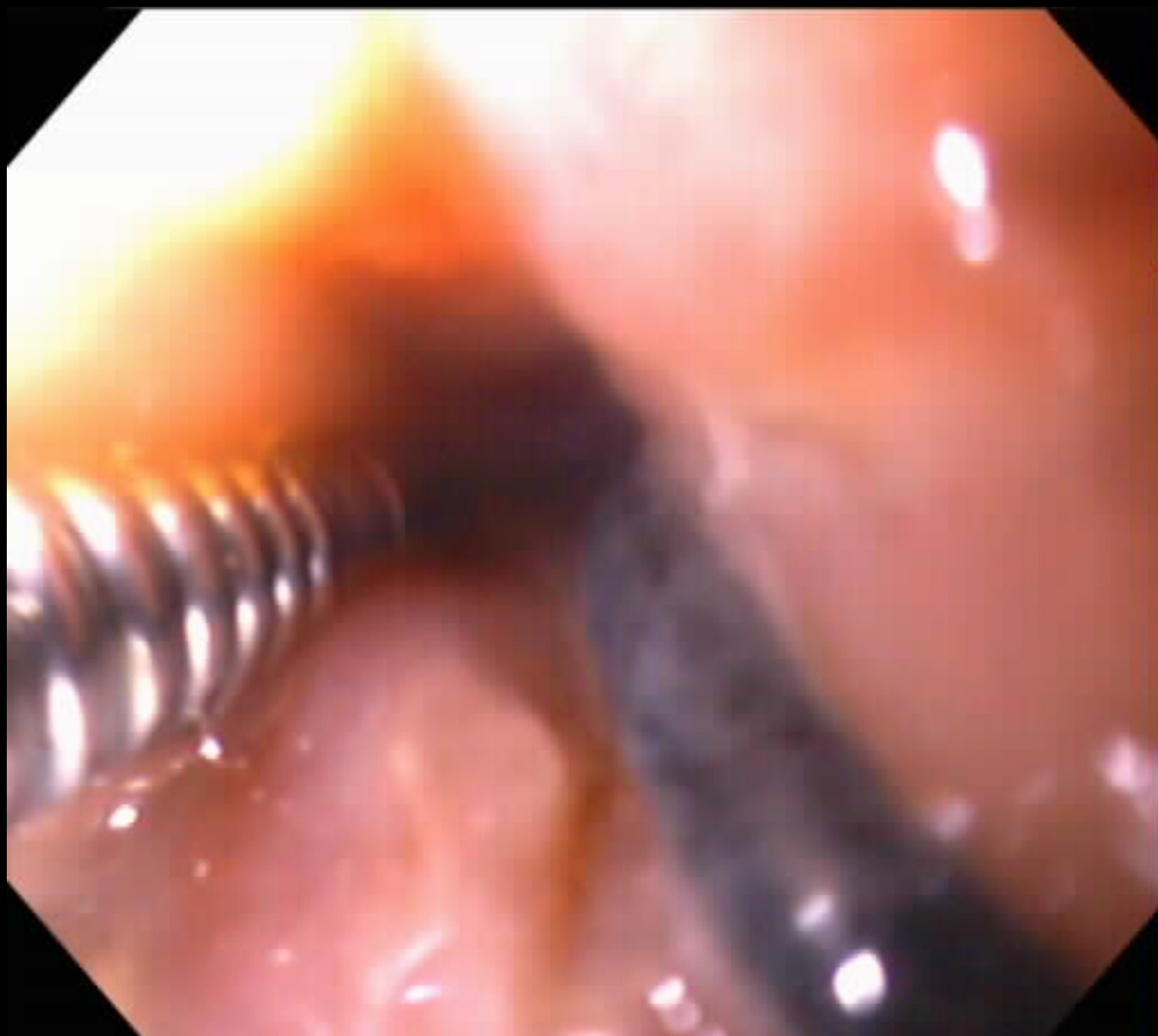
Dilation
Sequence



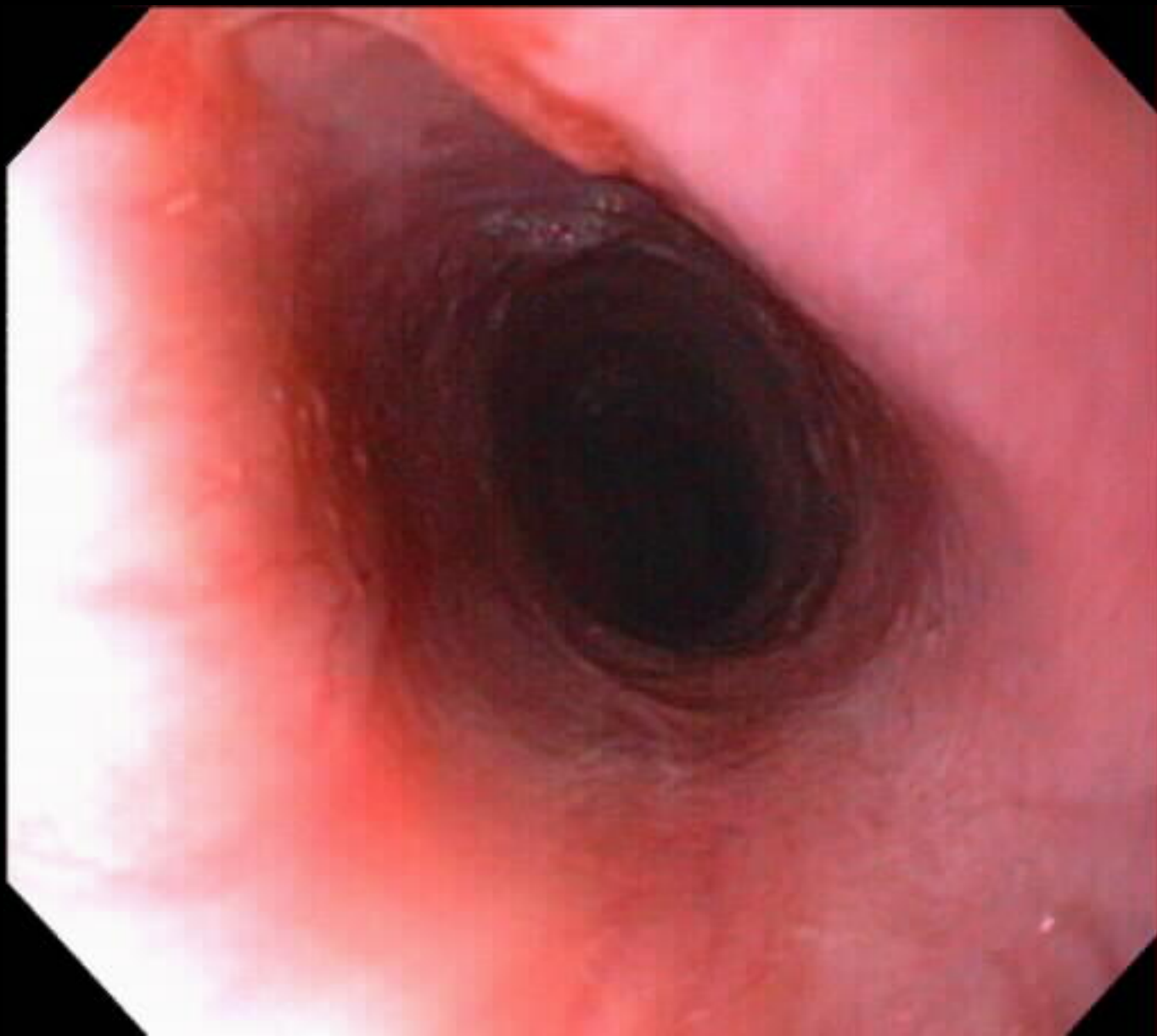


ELR Procedure Sequence

- 1) Pull suture attached to guide wire via gastrostomy & mouth
- 2) Retrograde (Tucker) dilation (q 3-5d)
- 3) Antegrade (Savary) dilation (q 1-2wks)
- 4) Remove indwelling suture when antegrade access is assured







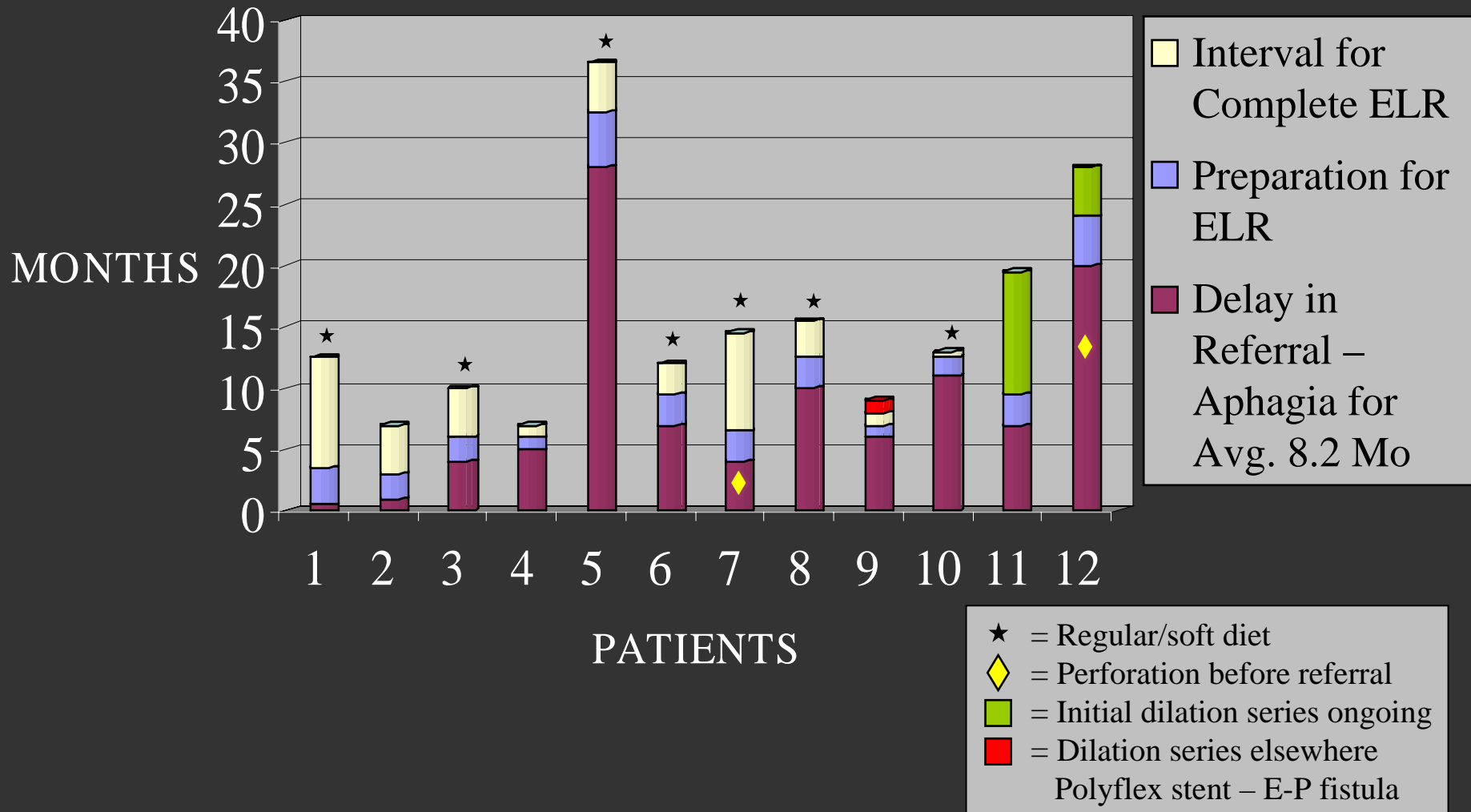


ELR Procedure Sequence

- 5) Repeat modified barium study
 - At 15-17mm dilation stage
- 6) Initiate swallow rehabilitation
- 7) Continue dilation as needed
- 8) Remove PEG 30-60 days after full PO diet

Endoscopic Lumen Restoration

Durations for Delay in Referral, Preparation Time & Interval for Complete ELR





ELR Outcomes

- Restored to peroral intake – 7
 - Modified regular/soft diet (6)
 - Soft diet + PEG (liver metastases)
- Lumen restored – PEG maintained – 2
 - Saliva only – high aspiration risk
- Lumen restored – PEG & dilations continue – 2
 - Small volume full liquids/soft diet
 - Small volume clear liquids
- Post ELR treatment at another clinic – 1
 - Small volume clear liquids
 - * Dilation stopped-Polyflex stent→E-P fistula



Profiter d'avaler tout l'Avignon!



Take in (swallow) all Avignon has to offer!