Medworld –asia International Publishers
Applied Physiology and Anatomy Digest [P ISSN: 2456 – 4095]
June 2018 (3) 01, 16 -19

Case Report:

Endo-luminal coated stent for early spontaneous rupture of esophagus

Dr. Kirankumar P. Jadhav* , Prof. Dr. Sanjiv S. Thakur , Prof. Dr. Ajay S. Chandanwale*** ,**
Dr. Chhaya E Ahire ****

* Assistant Prof. Surgery department, B .J .Gov. Medical College, Pune-411001
** Prof. & Head, Surgery department, B .J .Gov. Medical College, Pune-411001
*** Prof. Orthopedics department, B .J .Gov. Medical College, Pune-411001
**** Resident DoctorPhysiology department, B .J .Gov. Medical College, Pune-411001
Surgery department, B.J .Gov. Medical College, Pune-411001
Corresponding author**

ABSTRACT:

Spontaneous esophageal rupture (SER) is extremely rare15% and early symptoms of the disease are similar to those of emergency diseases of the chest and abdomen. The SER is life-threatening injury because of delay in diagnosis and rapid progression to septic condition.Without esophageal repair, the mortality is reported to be from 75 to 90%but with surgical or non surgical treatment the mortality decrease to 21%. SER is commonly seen in chronic alcoholic and mostly presented with forced vomiting or chest pain.

The endo-luminal stents result in rapid leak occlusion, provide the opportunity for early oral nutrition and may significantly reduce hospital length of stay.The endo-luminal stents are removable, and avoid the potential morbidities of operative repair.

Endo-luminal esophageal stent placement is an effective treatment of most SRO withminimal evidence of sepsis.

Key words: Spontaneous esophageal rupture, Endo-luminal coated stents, Esophageal repair.

ITRODUCTION:

We presented here endo- stenting and a chest drain for spontaneous esophageal perforation of two chronic alcoholic patientswithout sepsis, as safest, less morbid & more economical management.

Case1: 57 years old male chronic alcoholic patient admitted in private hospital 5 days back with SEP and was confirmed with esophago- gastro-duodenal (OGD) scopy and patient sent in this institute with Left inter-costal drainage(ICD). On admission patient was vitally stable with all blood investigation within normal report except Total leucocytes count = 12,500/cmm. Chest X ray suggestive of left sided minimal hydro-peumothrax. His abdomen was soft.Repeat OGD scopy done suggestive of antero- left lateral 2 cm perforation above gastro-esophaeal junctional. We placed coated esophageal stent beyond gastro-esophaeal junction under sedation. To avoid migration of stent we tied nylon thread on proximal end of stent and other end removed through mouth. But till stent partially migrated into stomach after one week and patient started hiccups so repeat OGD scopy and repositioning of stent done. Antibiotics continued for 2 weeks.Patient's ICD removed after 1 week of stenting & stent after 45 days. On discharge ask for absence of alcohol & spice food. Patient is in regular follow up since last one & half year without any complaints.

Case2: 41 years old male chronic alcoholic patient admitted under influence of alcohol with chest&epigastic pain. His systemic examination was normal. All blood investigations &ECG was normal. Chest X ray suggestive of left sided minimal hydro-peumothrax.SEP was confirmed with esophago- gastroduodenal (OGD) scopy on next say of admission. Left ICD & coated esophageal stent beyond gastro-esophaeal junction placed under sedation. To avoid migration of stent were tied with nylon thread on proximal end of stent and other end removed through mouth Antibiotics continued for 3 weeks.ICD removed after 1 week of stenting & stent after 3 weeks. On discharge ask for absence of alcohol & spice food. Patient is in regular follow up since last 7 months without any complaints.

DISCUSSION:

Spontaneous esophageal rupture (SOR) is extremely rareonly15%, and early symptoms of the disease are similar to those of emergency diseases of the chest and abdomen. The diagnosis and treatments are often delayed, resulting in an unfavorable outcome in some cases.[1] first case report of spontaneous esophageal rupture published in 1724.[2] Theesophagealrupture may be caused by spontaneous rupture, anastomotic leaks and the carcinoma resulted in perforation or fistula , Iatrogenic perforations, foreign body perforation, and traumatic perforation.[3]

High index of suspicion, aggressive use of esophagography, and individualized treatment are necessaryfor the best results in SRO because of delay in diagnosis and rapid progression to septic condition.[4,5]Early diagnosis and initial aggressive treatments such as nil by mouth, pleural and mediastinal drainage are important factor for better prognosis.[2,4]

Endo-luminal esophageal stent placement is an effective treatment of most spontaneousesophageal perforations. These stents result in rapid leak occlusion, provide the opportunity for early oral nutrition, may significantly reduce hospital length of stay, are removable, and avoid the potential morbidities of operative repair.[6]21% of cases stent migration may required re-positioning or replacement& 10-16% patient required operative repair& overall mortality among patients requiring re-operation is 57%.[3,6]

CONCLUSION:

Spontaneous esophageal perforationcommunally seen in chronic alcoholic ,opst bariatric surgery and old age people. Endo-luminal esophageal stent placement is an effective treatmentas these patients present as emergency & mostly diagnosed before sepsis. As we have only two case of SEP not able to compare effectiveness against early operative.

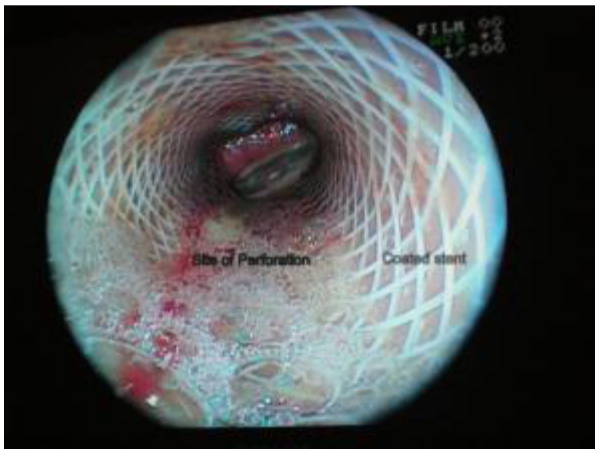

Photo 1: Coated esophageal stent with distal esophageal perforation

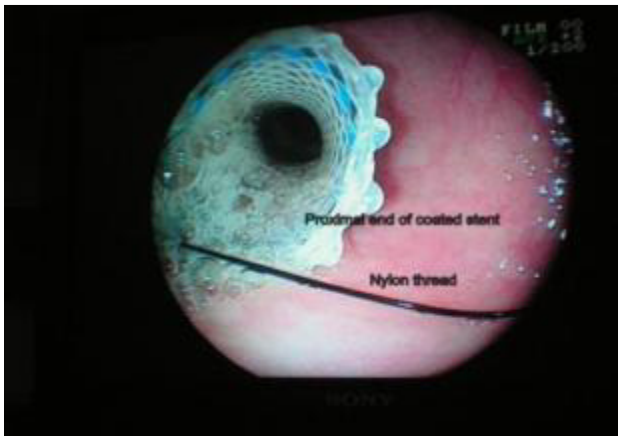

Photo 2: Proximal end of coated stent with nylon thread.

Sex:	
Male	**8**
Female	**0**
Age:	
31-40	1
41-50	6
>50	1
Etiology:	
Alcohol	8
Foreign body	0
Hyper emesis	0
Mode of Treatment	

ICD + Stenting	4
ICD + Lt. Thoracotomy	3
ICD + stenting followed ` by Lt. Thoracotomy	1
Complications:	
Stent migration	2
Chest infection	5
Septicemia	3
Mortality	2

References:

1. Hitoshi Ojima, Hiroyuki Kuwano, Shigeru Sasaki, et al.; Successful late management of spontaneous esophageal rupture using T-tube mediastino-abdominal drainage: hcc;The American Journal of Surgery. 2001; 182(2), 192–196.
2. Robert H. Brown, Jr, Paul S. Cohen: Nonsurgical Management of Spontaneous Esophageal Perforation: JAMA. 1978; 240(2);140-142.
3. Mark R. Bladergroen, James E. Lowe, R.W. Postlethwait: Diagnosis and Recommended Management of EsophagealPerforation and Rupture, The Annals of Thoracic Surgery: 1986, 42(3),235–239.
4. Keum DY, Park CK, Park KS: Clinical analysis of prognosis in spontaneous esophageal rupture; The Korean Journal of Gastroenterology 2005, 45(3):169-173.
5. Arthur E. Flynn, Edward D. Verrier, Lawrence W. Way, et al; Esophageal Perforation Arch Surg: 1989;124(10):1211-1215.
6. Richard K. Freeman, Jaclyn M. Van Woerkom, Amy Vyverberg et al; Esophageal Stent Placement for the Treatment of SpontaneousEsophageal Perforations: Ann of Thoracic Surgery: 2009; 88(1),194–198.