

Concurrent Chemoradiotherapy for Superficial Esophageal Cancer after Endoscopic Resection

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57세 남자가 삼킴통증을 주소로 내원하였고, 상부위장관내시경 검사상 상부식도에 조기식도암 발견되어 내시경 점막하박리술을 시행하였다. 그러나 최종 조직검사 결과 림프절전이 위험성이 높아 추가로 항암방사선 동시요법을 시행받았고, 이후 재발없이 지내다가 중부식도에 metachronous lesion 발견되어 식도전절제술을 시행받았다. 조기식도암에서 내시경점막하박리술 시행 후 항암방사선 동시요법은 효과적인 치료 방법이다.

Key Words: Concurrent Chemoradiotherapy, superficial esophageal cancer, non-curative endoscopic resection

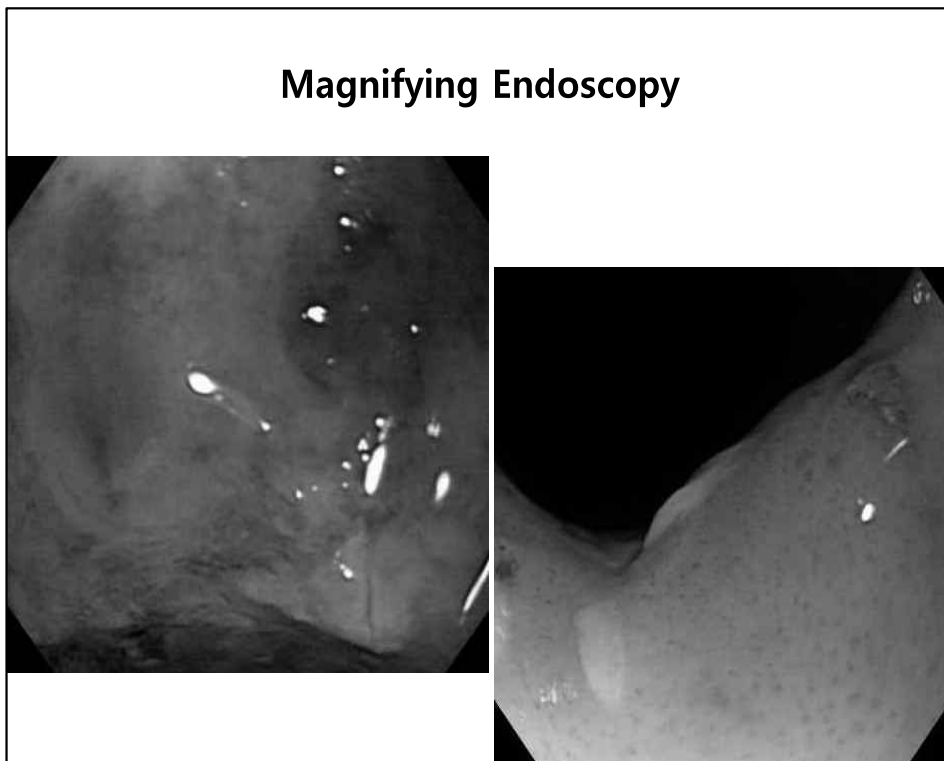
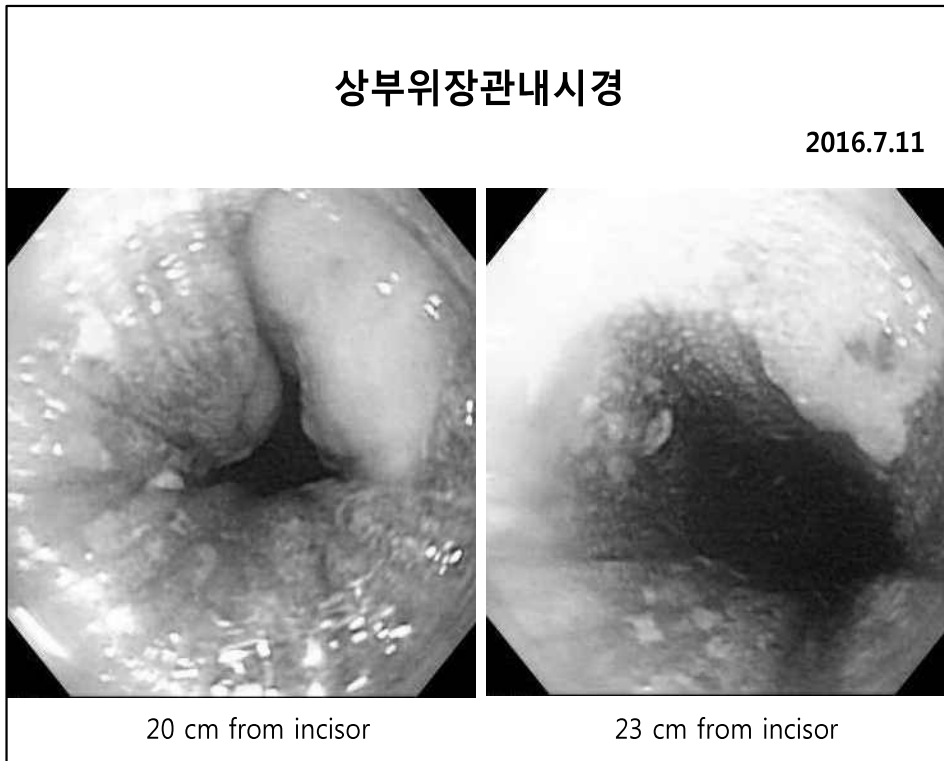
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2. Kuwano, Hiroyuki, et al. "Guidelines for Diagnosis and Treatment of Carcinoma of the Esophagus April 2012 edited by the Japan Esophageal Society." *Esophagus* 2014. p.1-30.
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CASE 1

Case 1, 57/Male

- C/C : Odynophagia (Onset ; 3 months ago)
- 2006.06 GFS
; 2.5~3.0 cm sized flat elevated lesion
just below upper esophageal sphincter
Bx.- Squamous cell carcinoma, moderately differentiated
- P/Hx. : None
- F/Hx. : None



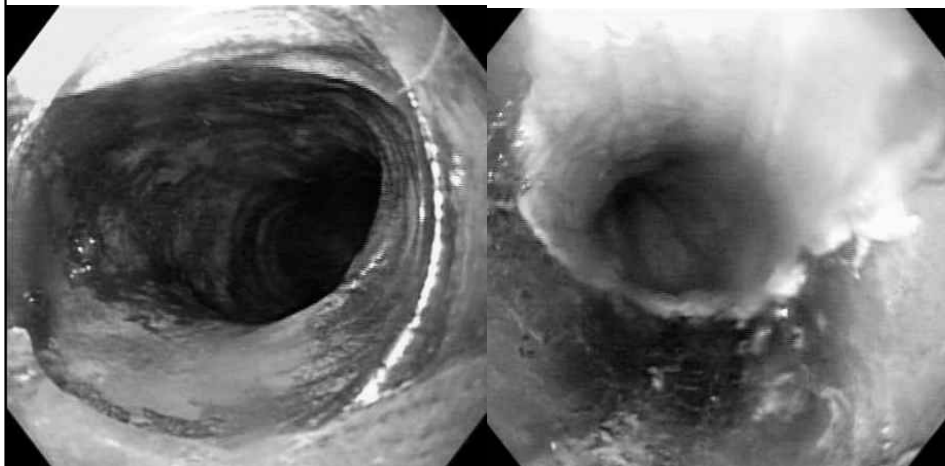
Impression

Early esophageal cancer, stage IA (cT1aN0M0)

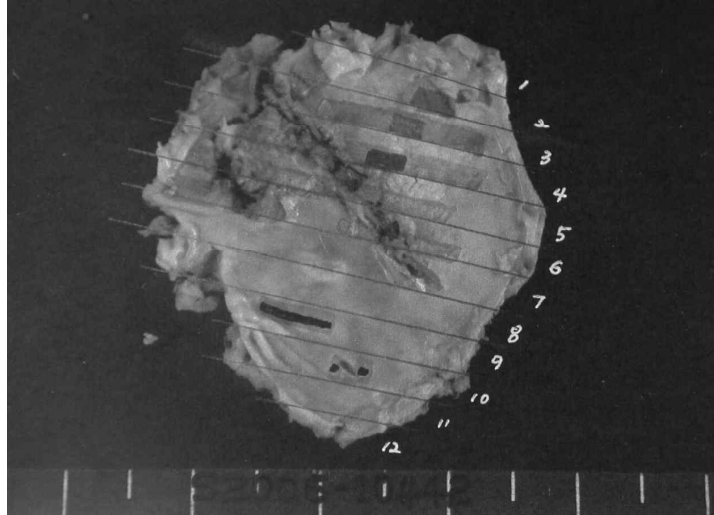
Squamous cell carcinoma, moderately differentiated

Endoscopic Submucosal Dissection

In the Operating Room

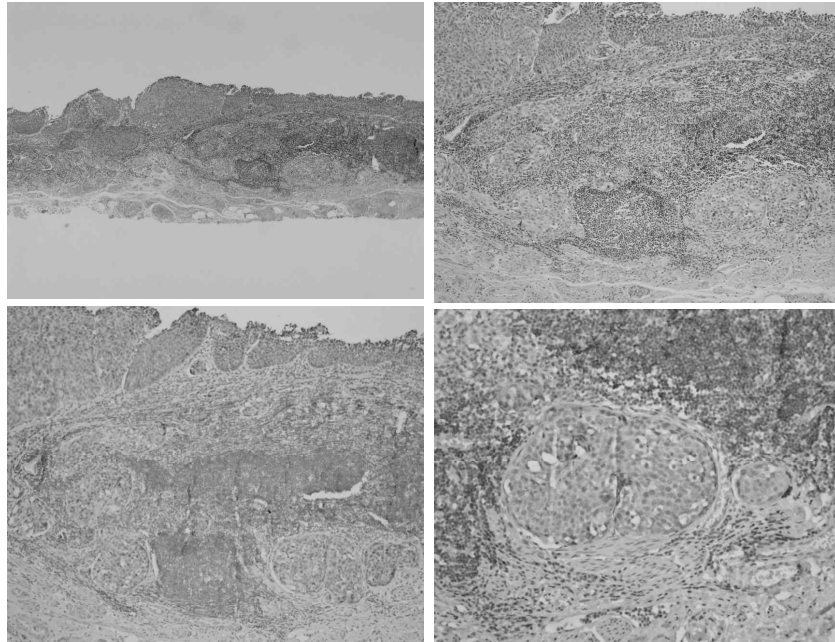


Pathologic mapping



Squamous cell carcinoma, moderately differentiated, 0-IIb, M3, 22*13 mm, Lat (-,3 mm), Vert (-), p53 (+), EGFR (+, focal), VEGF (+, focal), D2-40 (+)

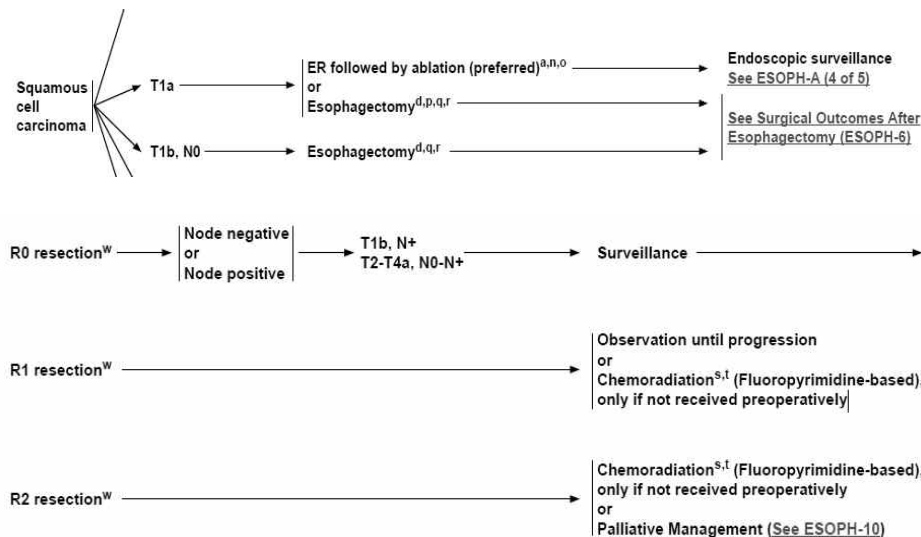
Pathologic finding



What will be your next plan ?

1. Annually follow up ?
2. Esophagectomy ?
3. Concurrent Chemoradiotherapy ?

NCCN National Comprehensive Cancer Network® **NCCN Guidelines Version 1.2014**
Esophageal and Esophagogastric Junction Cancers



We decided CCRT

- R0 resection
- Lymphatic invasion of tumor cells
- Refuse operation

Progress (2013.5)

본내주신 슬라이드 (병원 S13-02519-A, -B 각 H-E 염색 1장씩 총 2장)와 병리진단지 사본을 잘 받아보았습니다.

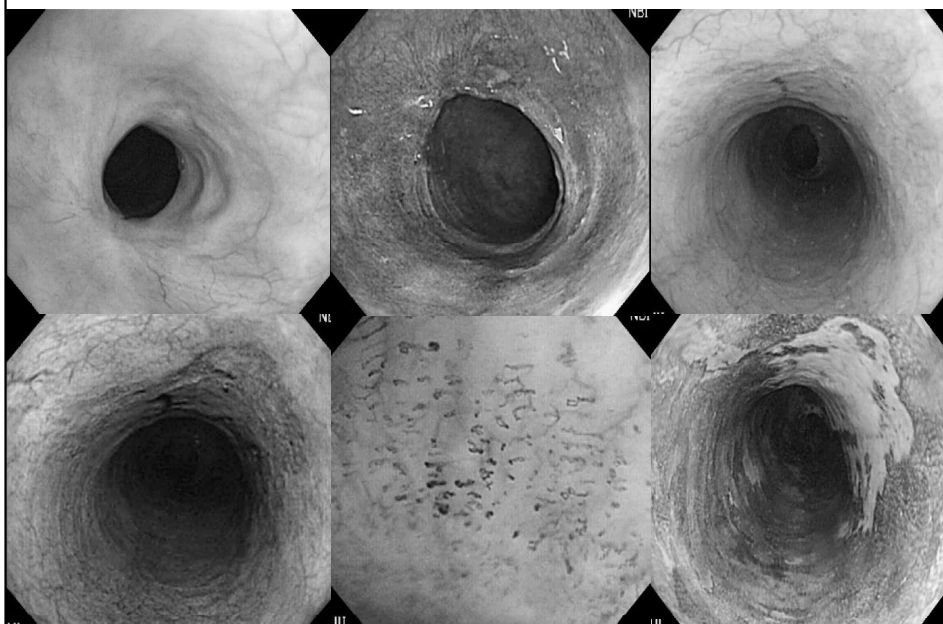
두 슬라이드 모두 식도생검 조직입니다.
 A는 한 조각으로서 정상 평평상피세포의 극성을 소실하고 비정형 다각형세포가 다형성을 동반하고 전 층에 걸쳐 증식하고 있어 표피층과 중피층에 해당합니다. 비특이하게 절편되어 확실한 기저막의 보존 상태를 평가하기 어려우나 국소적으로 고등급 내로 초기 침윤을 의심할 수 있습니다.
 B는 2조각이어서 한 조각은 비정형 세포가 상피층의 반 이상을 대체하고 있어 고등급 현성 이상입니다. 나머지 한 조각은 상피층만 침윤되어 기저막 보존 여부를 판별할 수 없으나 비정형 다각형세포가 고등급 이상이고 전층에 걸쳐 증식하며 다형성을 동반하고 있어 평평세포암종에 해당합니다.

Dx. Esophagus, biopsy:
 A (30cm from incisor):
~~One piece: Squamous cell carcinoma~~, moderately differentiated, with foci of early invasion.
 B (25cm from incisor)
 One piece: Squamous cell carcinoma.
 Another piece: High grade dysplasia.

본 검사는 환자의 요청에 의한 외부병원 슬라이드 판독결과입니다.

상부위장관내시경

2013.5



Final diagnosis

Metachronous esophageal cancer

→ Total esophagectomy with gastric tube reconstruction

- Squamous cell carcinoma, moderately differentiated, confined to the muscularis mucosa (M3)

All dissected Lymph node (30) – negative

; T1aN0M0 → stage IA



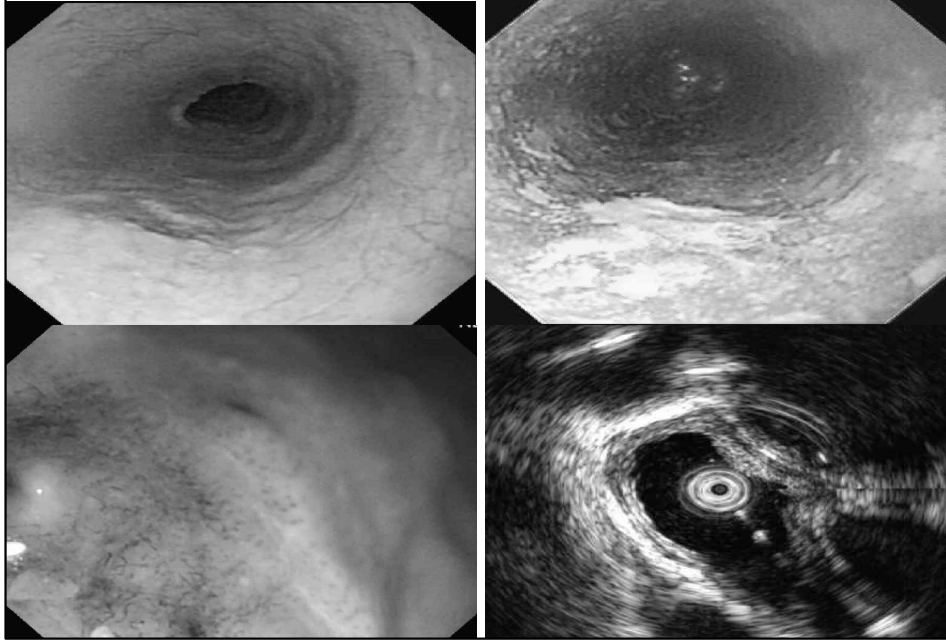
CASE 2

Case 2, 62/Male

- C/C : EEC W/U
- 2010.10 EGD
; 1.0 cm sized flat depressed lesion
32 cm from upper incisor
Bx.- Squamous cell carcinoma, well differentiated
- P/Hx. : 2008.9 ESD for EGC (ADC, WD, M3, RM-)
- F/Hx. : None

상부위장관내시경

2010.9.15

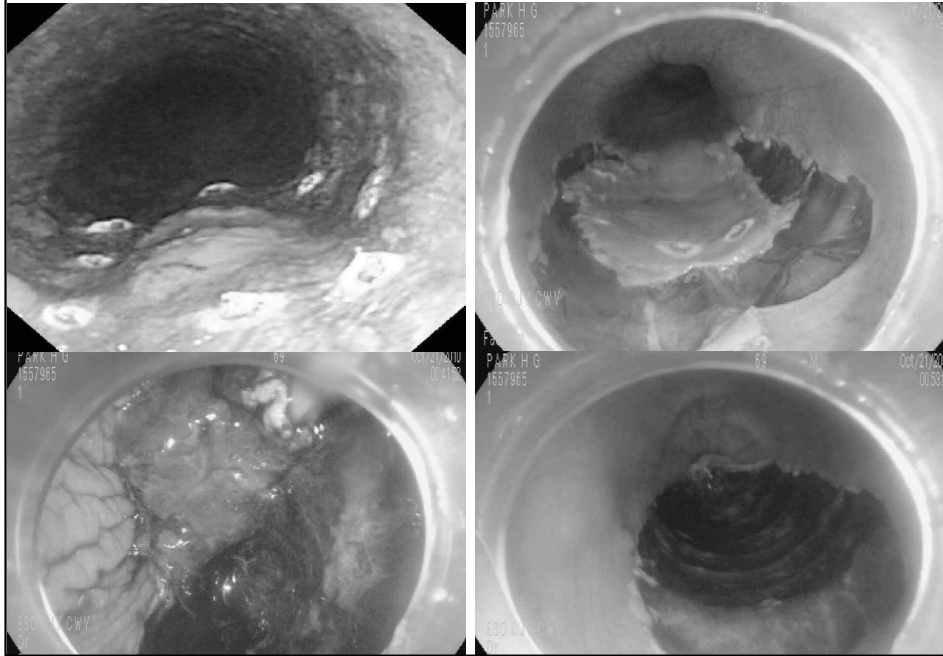


Impression

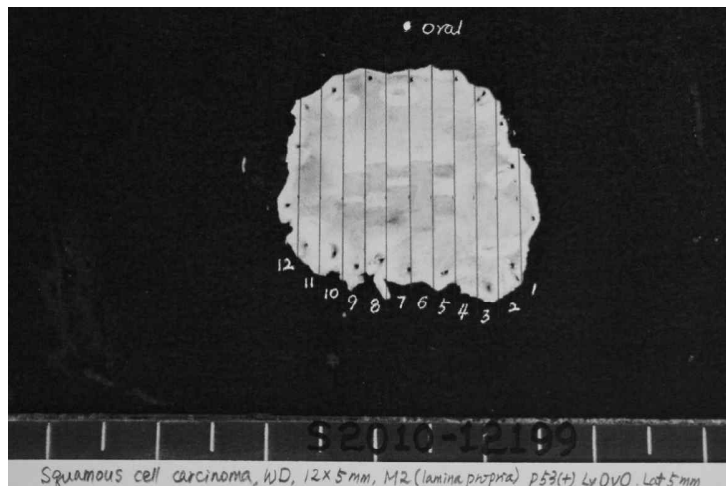
Early esophageal cancer, stage IA (cT1aN0M0)

Squamous cell carcinoma, well differentiated

Endoscopic Submucosal Dissection



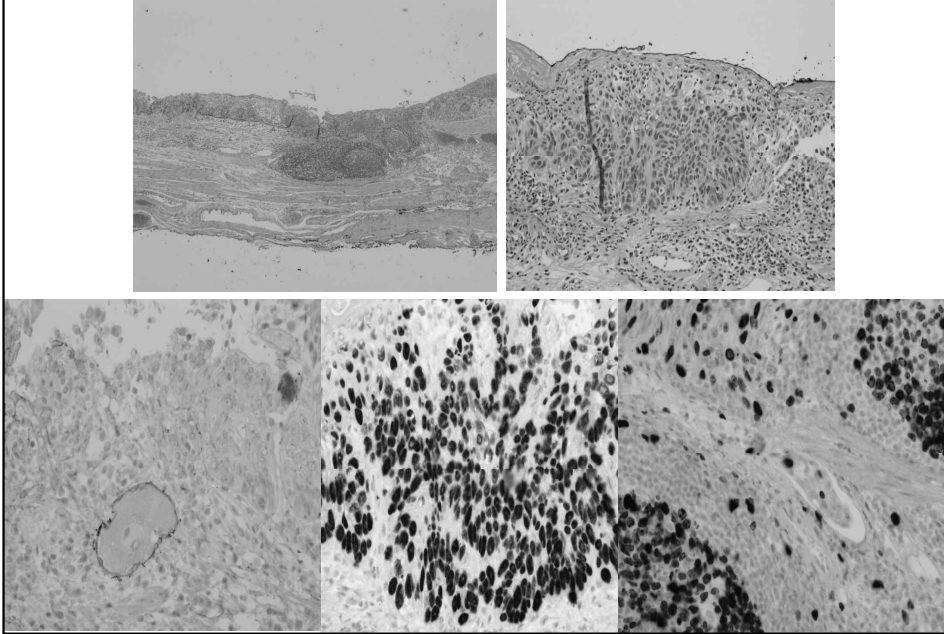
Pathologic mapping



Depressed mucosal lesion

Squamous cell carcinoma, moderately differentiated, 0-IIb, M3, 22*13 mm, Lat (-,3 mm), Vert (-), p53(+), EGFR (+, focal), VEGF (+, focal), D2-40 (+)

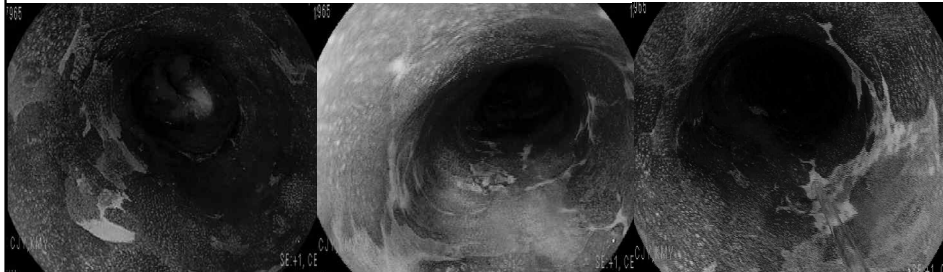
Pathologic finding



We decided CCRT

- R0 resection
- Lymphatic invasion of tumor cells
- Refuse operation

Progress (2013.3)



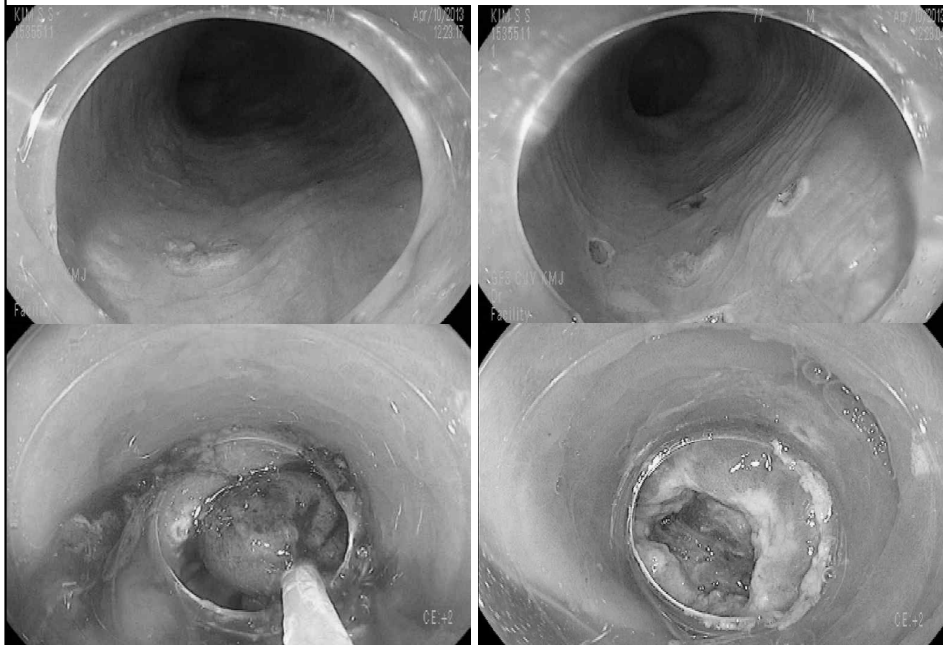
Pathologic Diagnosis

Esophagus, esophagogastroduodenoscopic biopsy:

1 (35cm from upper incisor) and 3 (32cm from upper incisor): Low grade dysplasia, see note.
2 (32cm from upper incisor, post-ESD scar): High grade dysplasia (squamous cell carcinoma in situ), see note.
4 (29cm from upper incisor), 5 (27cm from upper incisor), and 6 (26cm from upper incisor): Basal cell hyperplasia.

Note: Previous ESD slides from 32cm from UI (S2010-12199) were reviewed.

Endoscopic mucosal resection



Pathologic finding

Pathologic Diagnosis

Esophagus, 32cm from upper incisor, endoscopic mucosal resection:

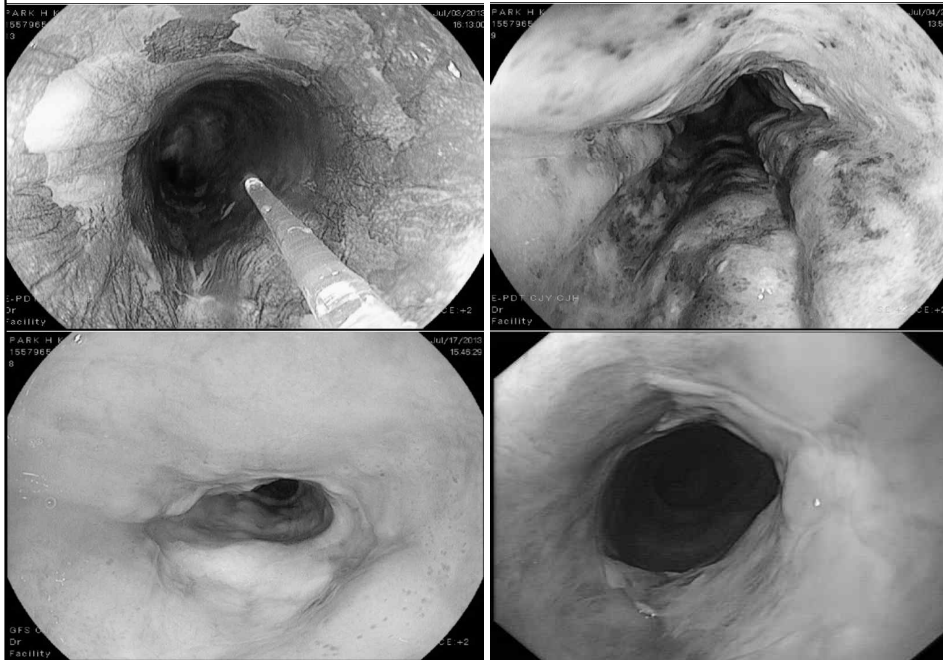
1. Squamous cell carcinoma, well differentiated.
2. Depth of invasion: Mucosa (lamina propria),
TNM stage by AJCC, 7th ed., 2010: pT1aNxMx.
3. Lymphovascular invasion: Not identified.
4. Resection margins: V
 i) Lateral: Involved by carcinoma in the both oral and anal side.
 ii) Vertical: Free of tumor.
5. Size of the lesion: 10x6mm.

본 진단은 조직구축학적 검사 후 판독 결과입니다.

Special stain : PAS (1) TAC (1)

Marker	Result	
CK5	+	
CK9	-	
< -37(M B-1)		> 50%
CK8	-	
EGFR	+	
CD57/CKE	+	
CE-AD	-	
Desmin		reactive

Photodynamic therapy



Summary

Treatment for superficial esophageal cancer after non-curative endoscopic resection

→ Operation ?

(Total esophagectomy with gastric tube reconstruction)

or Concurrent Chemoradiotherapy ?

MUC-II

Our current data...

Diagnostic date	Age /Sex	Location (cm, from U.I.)	Pre ESD Diagnosis	Evaluation after ESD					Progression	
				Dx	Size (mm)	Invasion depth	Resection margin	LI/VI	Recurrence	Treatment option
2006-09-26	58/M	20	Sq, MD	Sq, MD	22X13	M3	-	+ / -	Metachronous	Esophagectomy
2010-07-08	61/M	25	Sq, WD	Sq, WD	27x23	SM1;150	+ (LM)	- / -	-	
2010-10-21	69/F	32	Sq, WD	Sq, WD	25x18	M2	-	+ / -	+	EMR + PDT
2012-01-27	55/M	32	Sq, WD	Sq, WD	22X41	M2	-	+ / -	-	
2014-01-22	65/M	35	Sq, MD	Sq, MD	42X22	SM3;450	-	+ / -	-	
2014-07-23	67/M	28	Sq, MD	Sq, MD	25X13	M3	-	+ / -	-	
2014-08-11	59/M	32	Sq, MD	Sq, MD	32X18	M2	+ (LM)	- / -	-	