



# UES Relaxation Impairment in Dysphagia of Anti-TIF1- $\gamma$ Positive Dermatomyositis: A Case Report

Eun Sang Yoon, M.D., Jongkyu Kim, M.D.

Seoul Medical Center, Department of Physical Medicine & Rehabilitation



## Introduction

We experienced a woman of anti-TIF1- $\gamma$  positive dermatomyositis with dysphagia and report the clinical course of dermatomyositis induced dysphagia.

## Case Report

### A. Clinical course of dermatomyositis

A 54-year-old woman had suffered with progressive proximal limbs weakness with heliotrope rash and Gottron's papule, followed by dysphagia within three months. She was diagnosed with Anti-TIF1- $\gamma$  positive dermatomyositis.

### B. Clinical course of dysphagia

5 sessions of VFSS were performed to monitor dysphagia evolution over five months. The 2<sup>nd</sup> and 5<sup>th</sup> VFSS showed definite differences. (Table 1)

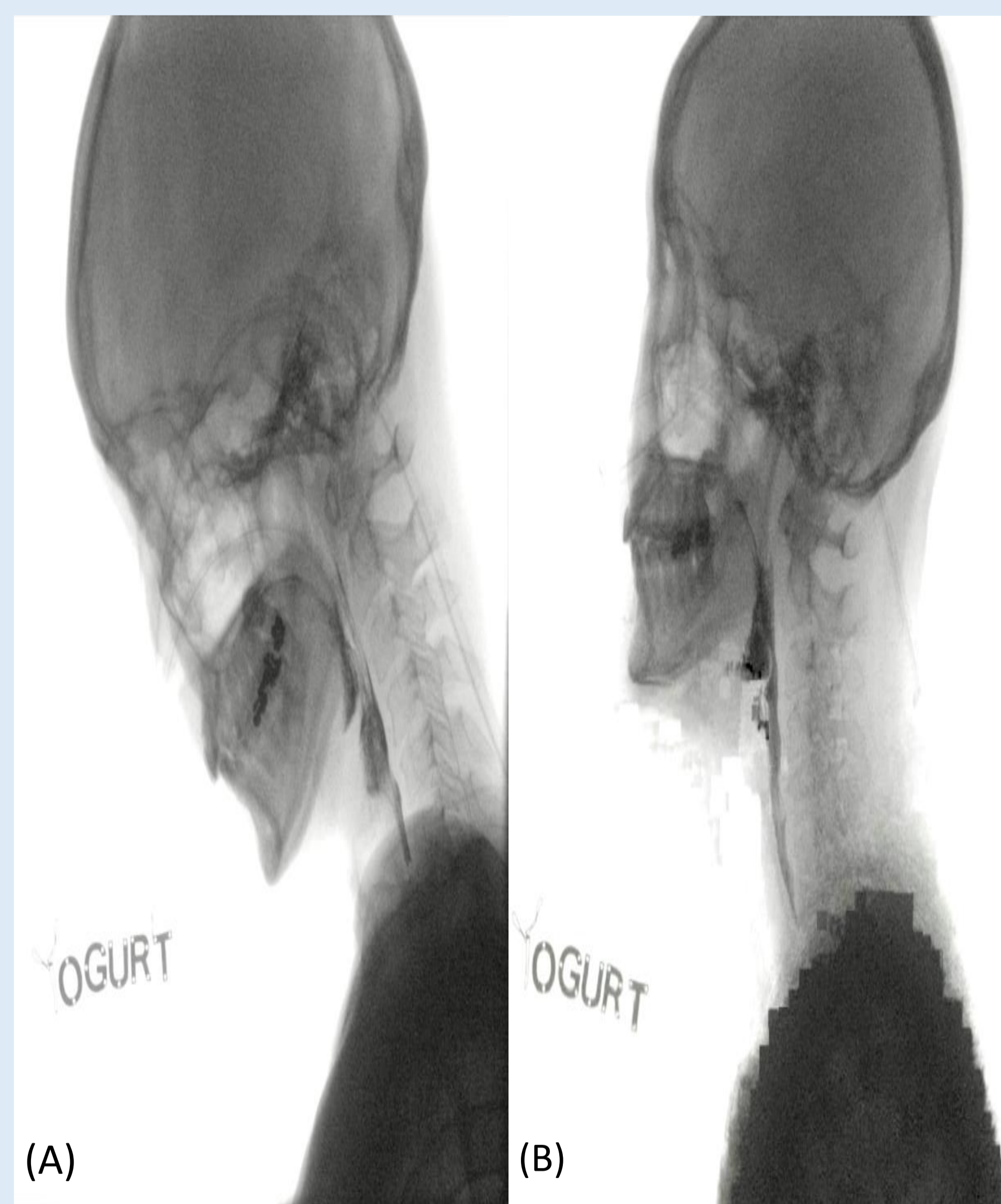
The 2<sup>nd</sup> session showed delayed UES opening with weak esophageal peristalsis and sinus residues overflowed with tracheal aspiration. On the contrary, the 5<sup>th</sup> session showed intact UES opening & esophageal contraction. (Figure 1)

These two time points illustrate that FDS items related to oral phase delay and suprahyoid weakness changed little in total score, yet clinically important improvement occurred through normalization of UES opening, which allowed a shift from “no oral trial” to “supervised DD2 trials in therapy.”

## Conclusion

We experienced a woman with dermatomyositis-related dysphagia in whom FDS items for oral phase delay and suprahyoid weakness changed little, yet swallowing improved markedly with normalization of UES opening. These findings suggest that UES relaxation may be more critical determinants of dysphagia recovery.

		2 <sup>nd</sup> Session	5 <sup>th</sup> Session
FDS *3cc thick liquid	Lip closure	0	0
	Bolus formation	3	0
	Residue in the oral cavity(%)	2	0
	Oral transit time (sec)	0	0
	Triggering of pharyngeal swallowing	10	10
	Laryngeal elevation & epiglottic closure	12	12
	Nasal penetration(%)	0	0
	Residue in the valleculae(%)	8	8
	Residue in the pyriform sinuses(%)	12	12
	Coating of pharyngeal wall after swallowing	10	10
	Pharyngeal transit time(sec)	4	0
	Total score	61	52



**Figure 1. UES opening comparison: (A, 2<sup>nd</sup> session) (B, 5<sup>th</sup> session)**

\*\*\*Comparing lateral view from the 2<sup>nd</sup> session (a) showing delayed UES opening (>3s) with residue overflow and 5<sup>th</sup> session (b) with immediate UES opening (~0s) and reduced residue despite similar FDS scores.

VFSS *3cc thick liquid	Pharyngeal phase	2 <sup>nd</sup> Session	5 <sup>th</sup> Session	
VFSS *3cc thick liquid	Hyolaryngeal elevation	Inadequate	Intact	
	Epiglottic folding	Inadequate	Inadequate	
	Triggering pharyngeal swallowing	Delayed	Intact	
	Pharyngeal transit time	Delayed	Delayed	
	Pharyngeal wall coating	Exist	Exist	
	Pharyngeal wall contraction	Inadequate	Inadequate	
	Residue in vallecular sinus	50%	25%	
	Residue in piriformis sinus	75%	50%	
	Esophageal phase			
	UES opening	Delayed	Intact	
	Esophageal wall contraction	Inadequate	Intact	
	PAS		6	3

**Table 1. FDS & VFSS summary**

\*\*\*Comparing between 2<sup>nd</sup> and 5<sup>th</sup> sessions showing highlighted improvements in oral phase, pharyngeal triggering, transit time, and UES opening.