

# The Comparisons of Outcomes of Free Jejunal Flap Reconstruction Between Hypopharyngeal Cancer and Corrosive Injury

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- Disclosure: The authors have no financial conflicts or commercial associations to disclose.

# Introduction

- Reconstruction of hypopharynx after wide excision of esophagus was still a challenge
- There was seldom study to analyze **etiology** distributed to hypopharynx outcome
- The purpose of this study was to compare the outcome of pharyngoesophageal defect of different cause after free jejunal flap reconstruction

# Patients and methods

- From 2001 to 2012, 25 patients received pharyngoesophageal reconstruction with free jejunal flap
- 16 patients in SCC group
  - all of 16 patients had received one stage reconstruction (jejunal flap only)
- 9 patients in CCI group
  - 8 of 9 patients had received 2 stages reconstruction (jejunal flap +colon interposition)

# Results

	Hypopharyngeal cancer	Corrosive chemical injury	
No. of patients	16	9	
Age, years	58 ± 9 (yrs)	47 ± 9 (yrs)	<i>p</i> =0.009 *
Gender			<i>p</i> =0.002 *
Male	16	4	
Female	0	5	
Underlying Disease			
DM	2	0	<i>p</i> =0.4
HTN	2	1	<i>p</i> =0.71
ESRD with H/D	0	0	NP
Pre-OP CCRT	6	0	<i>p</i> =0.045*
Malnutrition	14	5	<i>p</i> =0.17

# Results

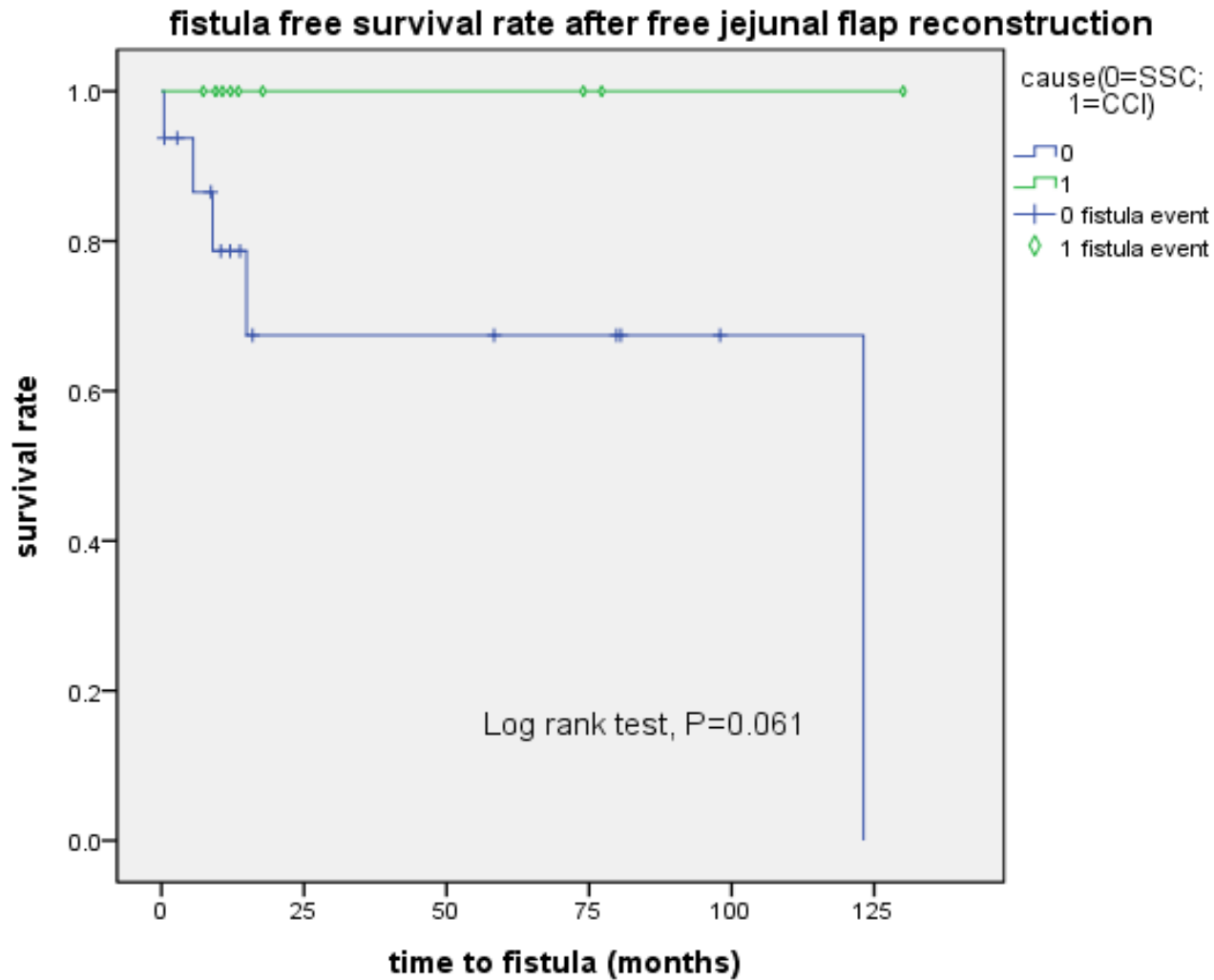
	Hypopharyngeal cancer	Corrosive chemical injury	
Patient No.	16	9	
Hospital stay	25 ± 8 (days)	23 ± 6 (days)	<i>P</i> =0.45
In hospital	5 (31.3%)	2 (22.2%)	<i>P</i> =0.5
complication			
Flap failure	2 (12.5%)	0 (0%)	<i>p</i> =0.4
Partial flap loss	0 (0%)	0 (0%)	NP
Infection	4 (25%)	2 (22.2%)	<i>p</i> =0.63
Thrombosis	2 (12.5%)	0 (0%)	<i>p</i> =0.4
Hematoma	2 (12.5%)	1 (11.1%)	<i>p</i> =0.71
Fistula	5 (31.3%)	0 (0%)	<i>p</i> =0.082
Stricture	1 (6.3%)	3 (33.3%)	<i>p</i> =0.116
Stricture<1yr	0	3 (33.3%)	<i>p</i> =0.037 *

# Results

## Fistula, early complication

- 5 of 16 patients (31.3%) developed fistula in SCC group, 0 fistula in CCI group
- No significant difference between SCC group and CCI group (  $p= 0.082$ , fisher exact test)
- No significant difference between SCC group and CCI group in Kaplan–Meier estimator ( $p= 0.061$  , Log rank test)
- But it seemed the trend of **more easily fistula** developing in SCC group

# Results



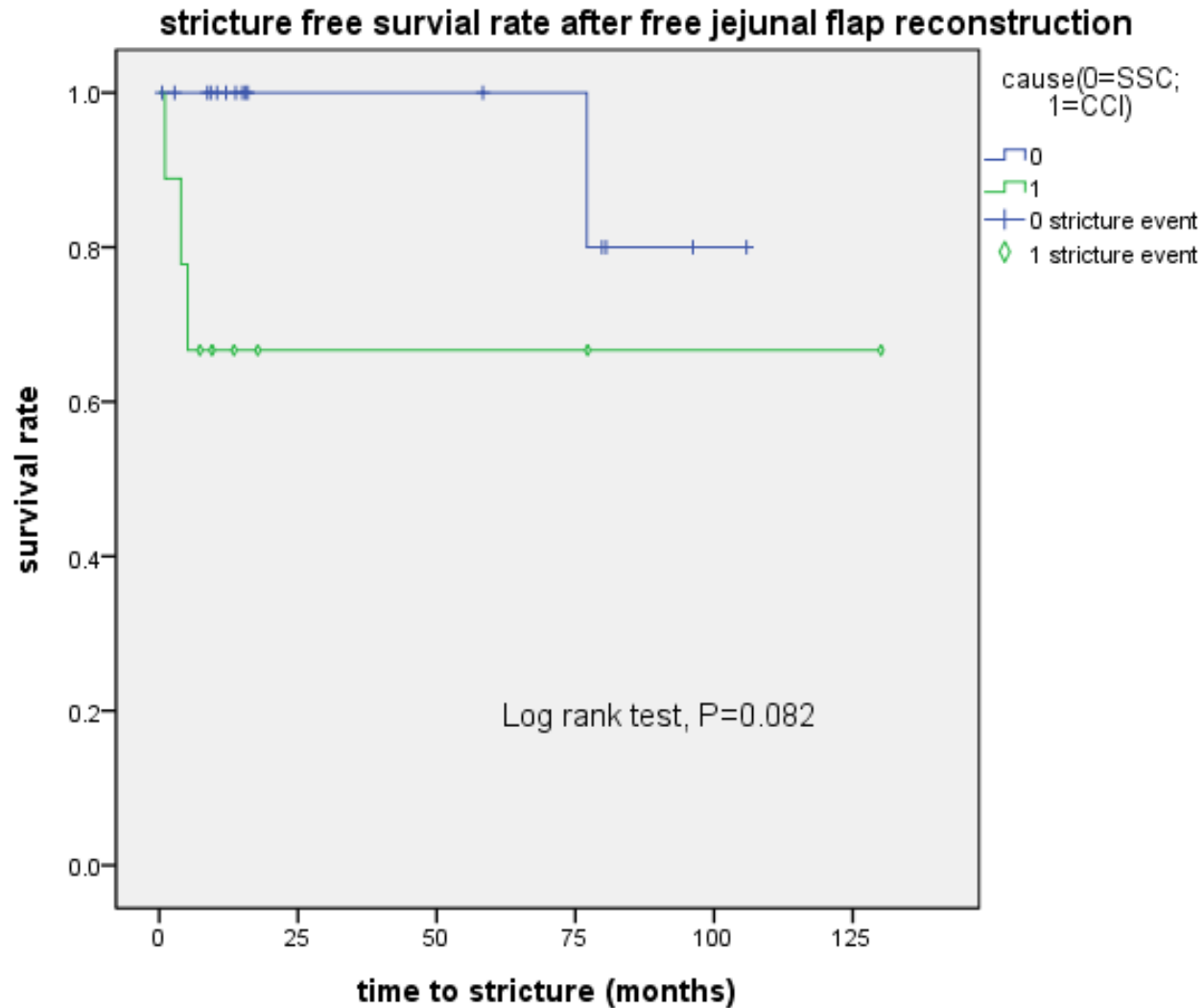
# Results

## Stricture, late complication

- 1 of 16 patients had been recorded stricture in SCC group, 3 of 9 patients in CCI group
- Stricture happened: both upper and lower anastomosis site; more in lower anastomosis
- No significant difference had been revealed between two groups ( $p=0.116$ , fisher exact test)
- There was no significant difference between two groups in Kaplan–Meier estimator. ( $p= 0.082$ , Log rank test)



# Results



## Early stricture

- Stricture rate occurred **in one year** was also compared, and statistically significant difference was identified ( $p= 0.037$ )

# Results

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Stricture	1 (6.3%)	3 (33.3%)	<i>p</i> =0.116
Stricture<1yr	0	3 (33.3%)	<i>p</i> =0.037 *

# Discussion

- More fistula occurred in SCC group (5/16) than in CCI group (0/9) .
- There was no significant difference in fistula rate between SCC group and CCI group
- But there was trend of more fistula occurrence in SCC group as time goes by

# Discussion

Why more fistula in SCC group?

- Elder patients in SCC group
- patients in SCC group had received CCRT (6/16); Significant compare with CCI group ( $p=0.045$ )

# Discussion

- More stricture happened in CCI group (3/9) than in SCC group(1/16)
- No significance in overall stricture rate ( $p=0.116$ )
- Trend had been found that stricture was **earlier happened** in CCI group in Kaplan–Meier estimator

# Conclusion

- This study would be helpful in pre-operation explanation
- Aiming to patient who sustained corrosive injury before reconstruction surgery
- **Post-operative early stricture** could be expected even though wide excision and free jejunal flap reconstruction
- Others, **high fistula occurrence** rate could also be expected in hypopharyngeal cancer patients