

Percutaneous Radiological Gastrostomy Can Safely be Performed as an Outpatient Procedure in Patients with Head and Neck Cancers

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Overview - PRG

- Percutaneous Radiological Gastrostomy (PRG) has been shown to be equally effective as Percutaneous Endoscopic Gastrostomy (PEG)¹
- A convenient and safe method for long-term nutrition needs of patients, either for symptomatic dysphagia or prophylactically²
- Frequently used in Head and Neck cancer patients to aid nutrition during the radiation therapy³

Introduction – PRG as OP Procedure

- PRG has traditionally been performed as an IP procedure
- While few previous studies have looked at the feasibility and safety of performing the endoscopic gastrostomy on an OP basis, no studies exist for radiological gastrostomy⁴
- OP procedure is beneficial to patients in terms of convenience and time, as well as to the financial burden of healthcare⁴

Study Objectives

- To compare the rate of the following parameters in PRGs performed in Inpatients vs Outpatients:
 - 15 day mortality
 - 15 day – Early Complications
 - 6 month – Minor Complications
 - 6 month – Major Complications

Methods

- Retrospective study using chart reviews
- Records of all head and neck cancer patients from January 2010 – June 2013 were reviewed
- Fifty OPs and 51 IPs underwent 100 gastrostomies and 1 gastrojejunostomy procedures
- Technical success, 15-day early mortality, 15-day early complications and 6-month late minor and major complications were recorded

Methods – Complications measured

Minor	Major
<ul style="list-style-type: none">• Superficial Infection• External Leakage – (Requiring repeat procedure)• Pain (Transient)• Tube Blockage or Dislodgement (Not requiring repeat procedure)	<ul style="list-style-type: none">• Deep Infection/Bacteremia• External Leakage (Requiring repeat procedure)• Pain (Persistent)• Tube Blockage or Dislodgement (Requiring repeat procedure)• Aspiration• Peritoneal Leakage

Results – Table 1 Patient Characteristics

	Inpatient n=51	Outpatient n=50	p-value
Age (mean ± SD)	66.0 ± 11.4	61.3 ± 12.9	0.053
Sex male	36 (70.6)	45 (90.0)	0.014
Diabetes	8 (15.7)	5 (10.0)	0.394
Symptomatic*	31 (60.8)	15 (30.0)	0.002
Stage II	3 (6.3)	1 (2.0)	0.161
III	4 (8.3)	8 (16.0)	
IVa	29 (60.4)	33 (66.0)	
IVb	4 (8.3)	6 (12.0)	
IVc	8 (16.7)	2 (4.0)	

Results – Table 2 Type of Cancer

	Inpatient n=51	Outpatient n=50	p-value
Oropharyngeal	29 (56.9)	38 (76.0)	0.269
Laryngeal	11 (21.6)	6 (12.0)	
Hypopharyngeal	7 (13.7)	2 (4.0)	
Nasopharyngeal	1 (2.0)	1 (2.0)	
Skin	1 (2.0)	0 (0.0)	
Thyroid	1 (2.0)	0 (0.0)	
Tonsillar	0 (0.0)	1 (2.0)	
Unknown	1 (2.0)	2 (4.0)	

Results – Table 3 Complications

	<u>Inpatient</u>	<u>Outpatient</u>	<u>p-value</u>
	<u>n=51</u>	<u>n=50</u>	
Major complication	3 (5.9)	4 (8.0)	0.715
Minor complication	14 (27.5)	4 (8.0)	0.018
Early complication	7 (13.7)	4 (8.0)	0.526
15-day mortality	1 (2.0)	1 (2.0)	1.00
<u>Complications</u>			
Dislodged	5 (9.8)	3 (5.9)	0.715
Superficial infection	4 (7.8)	1 (2.0)	0.362
External leak	2 (4.0)	1 (2.0)	1.00
Pain	2 (4.0)	1 (2.0)	1.00
Peritoneal leak	1 (2.0)	1 (2.0)	1.00
Tube blocked	1 (2.0)	0 (0.0)	1.00
Aspiration	1 (2.0)	0 (0.0)	1.00
Bacteremia	1 (2.0)	0 (0.0)	1.00
Total number of complications	17 (33.3)	8 (15.7)	0.051
Total number of patients with complications	15 (29.4)	7 (14.0)	0.061

Results - Summary

- The IP group had statistically higher rate of minor complications in the 6 month period compared to OP (p= 0.018)
- No significant differences in 15-day mortality, 15-day Early Complications or 6 month Major Complications
- Technical Success was 100% in both groups

Limitations

- Retrospective study - outcomes extracted from charts and notes
- IP patients were pre-selected, chances of higher co-morbidities and lower tolerance for complications
- Higher Prophylactic PEGs in OP than IP
- Head and Neck Cancer Patients Only

Conclusion

Percutaneous radiologic gastrostomy can be performed successfully and safely as an outpatient procedure in the appropriate patients with head and neck cancer.

References

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