

# Endoscopic Re-Evaluation of Visick Grading

Pages with reference to book, From 174 To 176

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## Abstract

Correlation of Visick grading was done with serial endoscopies in 19 patients operated for duodenal ulceration, Deeper mucosal lesions like ulceration showed good association with Visick grading (100%), while superficial mucosal lesions were mostly asymptomatic and therefore, caused disparity in grading. Moreover, as symptoms and endoscopic findings changed with passage of time, it was concluded that in the light of endoscopic findings the grading needs re-evaluation (JPMA 46:174, 1996).

## Introduction

Even though the ideal surgical treatment for duodenal ulcer disease is still not established, the post-operative clinical symptomatic status is universally graded on the Visick's scale<sup>1</sup>. Since the introduction of fiberoptic endoscopy, the diagnostic yield of not only deeper mucosal lesions but also of superficial lesions like erosions has considerably increased<sup>2</sup>. Serial endoscopies done at regular intervals or during recurrence of symptoms have shown that the chances of picking up lesions especially in asymptomatic patients increases with the frequency at which endoscopies are reported<sup>3</sup>. The present study was carried out to ascertain the correlation of Visick grading with the endoscopic findings and see if the grading system stands the test of time.

## Patients and Methods

Patients with endoscopically diagnosed duodenal ulcer disease who were attending this department were offered surgery for duodenal ulcer disease if, (a) there was failure of compliance in taking anti-ulcer medicines due to various reasons, (b) there were frequent relapses on discontinuation of therapy, (c) complications developed, e.g., stenosis, perforation or bleeding (d) there was ulcer recurrence following previous surgery.

All patients were operated upon by one surgeon (MM) Two types of surgical procedures were performed which included gastric resection with gastrojejunostomy and Vagotomy with/without drainage (Truncal vagotomy, selective vagotomy). No anti-ulcer drug was given post-operatively and endoscopies were repeated at 6 weeks, 3, 6 and 12 months to see ulcer recurrence. At each follow-up symptom evaluation was carried out using the modified Visick's grading (Table I).

Table I. Modified Visick grading.

Grades	Symptoms
I	No complaints
II	Minor complaints
I II	Moderate complaints
IV(a)	Complaints not decreased by operation, but no evidence of ulcer recurrence.
IV (b)	Endoscopic ulcer recurrence
IV (c)	Re-laparotomy due to ulcer recurrence.

For the purpose of analysis, only those patients completing 6-12 months of follow-up were included in the study.

## Results

Thirty-four patients underwent surgery for duodenal ulceration. Their ages ranged from 11-65 years with majority falling in 3rd- 4th decade of life (21 cases). There were 29 males and 5 females mostly belonging to lower middle Socio-economic class.

The duration of disease varied from few hours (in perforation) to 20 years with majority having symptoms for 8-10 years. A mean of 2.8 courses of H2 receptor antagonists were used by each patient (range 0-12) with a mean of 4 endoscopies performed on each case prior to surgery (range 0-10, no endoscopy was done in perforations). Of the total, 21 had complications of the ulcer (stenosis 12, bleeding 6, perforation 3) and 13 could not afford medical treatment.

Truncal vagotomy with gastrojejunostomy was done in 12, selective vagotomy with gastrojejunostomy in 7, highly selective vagotomy in 9 and gastric resection in 6 cases. For the purpose of analysis, all cases are analysed as one group. Out of 34 patients operated, 15 were not included (12 were lost to follow-up, 2 have yet to complete 6 months and 1 died of myocardial infarction), thus leaving 19 cases for evaluation. Endoscopic findings at 6 and 12 months and Visick grading are shown in Table II.

Table II. Visick grading vs endoscopic findings.

Duration	Visick	Grading Nos.	Endoscopic lesions Present	Type	
6 months	Gr I	15	5	Duodenal Ulcer (1)	
	Gr II	1		Stomal erosion (1)	
				Duodenal erosion (1)	
				Gastric residue (2)	
	Gr III	1	1		
	Gr IV	2	2		
1 year	Gr I	11	4	Stomal erosion (1)	
	Gr II	2		Gastroduodenitis (1)	
	Gr III	1		1	Gastric residue (2)
	Gr IV	2		2	

At 6 months, of 19 evaluated cases 15 were asymptomatic (Visick I) and one had minor complaints (Visick grade H) giving an overall satisfactory outcome in 16 cases. Eighteen cases were endoscoped of whom 10 had no lesions and 8 showed lesions. One patient was not endoscoped, showing that 5 out of 16 asymptomatic patients had lesions on endoscopy. At 1 year, out of 16 cases seen at follow-up, 11 were Visick grade I and two were grade II All 16 were endoscoped, 9 had no lesions and 7 had lesions. Overall, a better correlation of symptoms was found with deeper mucosal lesions like ulcer while no association was found with superficial lesions like erosions and inflammation. One asymptomatic patient had a duodenal ulcer recurrence that healed and recurred twice without medication creating confusion with grading.

### Discussion

Since the introduction of Visick grading for clinical evaluation of postoperative peptic ulcer cases, the grading has been challenged/changed with time. Small<sup>4</sup> developed a self administered proforma for patients operated for duodenal ulcer so that patients could correlate their symptoms with the Visick grading. observations on Visick grading, i.e., recurrent ulceration was over scored and they suggested that recurrence should be included only if ulcer is symptomatic; grading should include a wider range of symptoms related to the disease and its treatment and lastly, except for 5 only 3 grades are necessary. Modified Visick grade I, II and III being clinical grading do not take into account the fact, that mucosal lesions may be present which can only be picked up on endoscopy. Thus, if endoscopic findings are included/considered, the Visick grading changes. This fact is proven in our study when at 6 months it is noted that out of 16 asymptomatic (Visick grade I and II) patients, 8 had lesions on endoscopy and at 1 year out of 13 asymptomatic patients, 7 had lesions on endoscopy.

In a study of highly selective vagotomy for chronic duodenal ulcer Raab et al<sup>6</sup> reported a 29.7%

probability of ulcer recurrence over 16 years; and the rate of recurrence was determined among other factors, by the discovery of quiescent ulcers during yearly follow-up. The finding of quiescent ulcers was later confirmed by Boyd<sup>3</sup> who picked up about 50% of ulcer recurrence in asymptomatic duodenal ulcer cases who were endoscoped at 6 monthly interval, showing the importance of repeated endoscopies in determining the true ulcer recurrence rate. Progression of superficial lesions (stomal erosions/duodenal erosions) to deeper ulceration is well documented<sup>7</sup> and so is natural healing and relapse of ulcer. Keeping all these observations in mind, consensus is required on few points. i.e.:

1. Which patient should be endoscoped post operatively? All or few.
2. Timing of first/follow-up endoscopy.
3. Should patients be graded once or at each follow-up?
4. How should asymptomatic patients with abnormal findings be graded?
5. Is there a need for a revised grading system?

We suggest that in this high tech era where fiberoptics are available almost everywhere, all patients undergoing surgery for duodenal ulcer or its complications should be endoscoped at least once at 6 months. Those found to have no lesion on endoscopy should be graded as 0. Those having superficial mucosal lesions like erosions, duodenitis, gastritis should be graded as I and those showing proper ulceration as grade II. Causes other than ulceration like bile gastritis and helicobacter pylori infection should be investigated and dealt within patients belonging to grade I and II. Anti-ulcer therapy should be given to only grade II cases and they should be followed and endoscoped like all other ulcer cases.

## References

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