



# Meningioma Recurrence: The Relevance of Histology vs. Simpson Grading

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## Introduction

The Simpson resection grading has been widely used as a predictor of meningioma regrowth since 1957. New evidence suggests that the histological features of meningiomas are more relevant predictors of recurrence, and that the differences between grade 1 and grade 2 resections are negligible.

## Methods

We undertook a retrospective review of 310 cases operated at our center in the past two decades and followed up for a mean period of 8 years with multiple MRI scans. The Simpson resection grade and the histological features were analyzed to determine if these could predict recurrence.

## Results

The Simpsons grade did not accurately predict recurrence, and the differences between Grade 1 and Grade 2 resections were negligible. The histological features and WHO Grading were more accurately able to predict tumor regrowth. Predictions regarding the time to recurrence could not be generalized from the sample size.

## Conclusions

Histological features are superior at predicting meningioma recurrence when compared to Simpson grading. The relevance of the grading scale must be called into question given modern advances in neuropathology and neuroimaging.

## Learning Objectives

To shift clinical practice patterns in meningioma treatment from traditional teaching to evidence-based methods, by testing the predictive power of the Simpson grading and comparing the results to modern neuropathological diagnosis.

## References

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