



Retrospective Evaluation of Patient Acceptance of Recession Coverage Procedures in a Dental Teaching Hospital

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KEYWORDS

Gingival recession, patient acceptance, recession coverage, mucogingival surgery, retrospective study

ABSTRACT:

Background: Gingival recession is a common periodontal condition that affects esthetics, root sensitivity, and increases the risk of caries. Despite the availability of predictable mucogingival surgical techniques, patient acceptance of recession coverage procedures remains inconsistent.

Aim: To retrospectively evaluate the acceptance of gingival recession coverage procedures among patients visiting a tertiary dental care center.

Materials and Methods: This retrospective study analyzed 250 patient records diagnosed with gingival recession over one year. Data were collected regarding age, gender, recession classification, oral hygiene, and whether patients accepted the recommended coverage procedures. Descriptive statistics and chi-square tests were used to analyze acceptance trends across demographics and clinical categories.

Results: Out of 250 patients, 190 were advised recession coverage procedures. Only 95 patients (38%) accepted and underwent the surgery. Younger patients (18–30 years) showed higher acceptance (58.3%), and Class I recession cases had the highest uptake (55.6%). The most common reasons for refusal were lack of symptoms, fear of surgery, and financial concerns.

Conclusion: Less than half of the patients advised gingival recession coverage procedures proceeded with treatment. Enhanced patient education and communication regarding the benefits and long-term outcomes of these procedures are essential to improve acceptance rates.

1. Introduction

Gingival recession is defined as the apical migration of the gingival margin from the cemento-enamel junction (CEJ), leading to the exposure of root surfaces [1]. It is a prevalent clinical condition observed in patients of all age groups and often presents a dual challenge: esthetic concern and root hypersensitivity. The multifactorial etiology of gingival recession includes traumatic tooth brushing, periodontal disease, anatomical predispositions, and iatrogenic factors such as orthodontic treatment or subgingival restorations [2].

Recession not only compromises the cosmetic appearance, especially in the anterior region, but also predisposes teeth to root caries, plaque accumulation, and dentinal hypersensitivity [3]. In recent decades, the demand for esthetic periodontal plastic surgeries has increased as patients have become more conscious about

their smiles and oral health [4]. Among the various mucogingival procedures, techniques such as coronally advanced flap (CAF), connective tissue graft (CTG), and free gingival graft (FGG) have shown high success rates and predictable outcomes in root coverage [5–7].

The 2017 World Workshop on Periodontal Diseases classified gingival recession based on interproximal attachment levels and established guidelines for surgical intervention [8]. While clinical expertise, case selection, and technique play a major role in the success of mucogingival therapy, patient acceptance of the proposed treatment plan remains a critical factor that influences clinical decision-making and case outcomes [9].

Despite advances in periodontal plastic surgery, not all patients advised for recession coverage procedures accept the treatment. The reasons for refusal vary and



may include a lack of awareness, absence of symptoms, cost concerns, surgical anxiety, or underestimation of long-term implications [10]. Although much emphasis is placed on clinical technique and outcomes in the literature, there is limited data on the behavioral and demographic aspects influencing patient acceptance of periodontal surgeries.

In academic and tertiary care institutions, where patients are referred for specialized care, understanding patient acceptance patterns becomes even more relevant. These institutions often treat patients from varied socioeconomic and educational backgrounds, making it a valuable setting to explore acceptance trends and potential barriers to treatment [11].

Retrospective studies provide an efficient way to analyze existing clinical data without any direct patient involvement. In this study, a retrospective chart review was performed to determine the rate of acceptance of recession coverage procedures among patients diagnosed with gingival recession in a dental teaching hospital over a one-year period. Additionally, this study aimed to identify whether variables such as age, gender, and classification of recession influenced acceptance patterns.

Understanding these factors can help clinicians and postgraduate trainees to better communicate treatment plans, anticipate patient hesitations, and tailor discussions to improve uptake of necessary procedures. In the long term, this could enhance both patient satisfaction and clinical outcomes.

This study serves to bridge the gap between clinical recommendation and patient decision-making by analyzing acceptance rates and identifying patterns of refusal. The insights gained from this analysis could serve as a foundation for future patient education strategies and help periodontists anticipate and address common concerns effectively.

2. Materials and Methods

This was a retrospective record-based study conducted in the Department of Periodontics at a tertiary dental teaching hospital. Institutional Ethics Committee approval was obtained prior to commencement.

2.1 Data Source and Duration:

The records of patients diagnosed with gingival recession from January 2024 to December 2024 were screened. A total of 250 case sheets with complete periodontal charting were included. Data was extracted from the institution's digital record system - DIAS (Dental Information Archiving Software).

2.2 Inclusion Criteria:

- Patients aged ≥ 18 years.
- Documented diagnosis of gingival recession.
- Complete case records with treatment plans.

2.3 Exclusion Criteria:

- Incomplete or illegible records.
- Recession due to trauma or aggressive brushing alone without periodontal diagnosis.
- Syndromic cases.

2.4 Parameters Collected:

- Age
- Gender
- Recession classification (Miller's I–III)
- Teeth affected
- Oral hygiene status
- Whether coverage was advised
- Whether the patient underwent the procedure
- Reason for refusal, if mentioned

2.5 Statistical Analysis:

Data were compiled and entered into Microsoft Excel and analyzed using SPSS v23. Descriptive statistics (frequency, percentage) were used. Chi-square test was applied to assess associations between variables such as age, gender, and acceptance.

3. Results

Out of 250 patients diagnosed with gingival recession, 190 patients (76%) were advised surgical coverage procedures. Among those, only 95 patients (38%) underwent the procedure, while the remaining 155 patients (62%) refused or deferred treatment as shown in table 1.



Gender-wise, 140 patients were male and 110 were female. Acceptance among females was higher (50%) compared to males (38.1%) as shown in table 2. Age-wise, patients aged 18–30 years had the highest acceptance rate (58.3%), followed by 31–45 years (42.9%) and above 45 years (33.3%) as shown in table 3. When categorized by Miller’s classification, Class I recession cases had the highest acceptance (55.6%), followed by Class II (42.9%) and Class III (33.3%) as shown in table 4. Most commonly documented reasons for non-acceptance included lack of symptoms, fear of surgical intervention, and financial concerns. Figure 1 represents the results in the form of Bar graphs.

Table 1: Overall Acceptance of Recession Coverage Procedures

Parameter	Number (n)	Percentage (%)
Total Patients with Recession	250	100%
Advised Coverage Procedure	190	76%
Accepted and Underwent Procedure	95	38%
Declined / Deferred Treatment	155	62%

Table 2: Gender-wise Distribution

Gender	Total	Advised	Accepted	Acceptance (%)
Male	140	105	40	38.1%
Female	110	85	55	50.0%

Table 3: Age-wise Acceptance

Age Group	Advised	Accepted	Acceptance (%)
18–30 years	60	35	58.3%
31–45 years	70	30	42.9%
>45 years	60	30	33.3%

Table 4: Recession Classification

Miller Class	Patients	Advised	Accepted	Acceptance (%)
Class I	100	90	50	55.6%
Class II	90	70	30	42.9%
Class III	60	30	10	33.3%

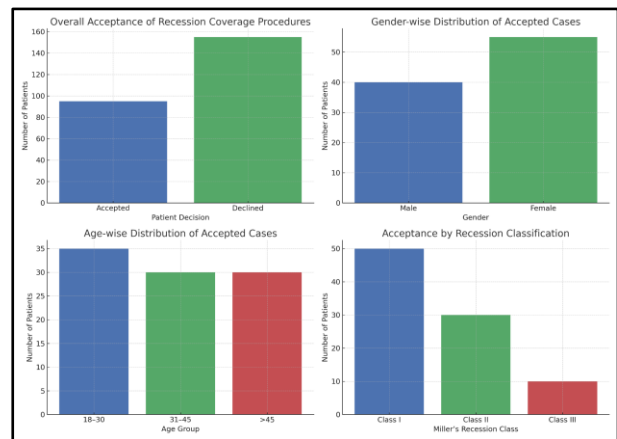


Figure 1: Patient Acceptance of Recession Coverage Procedures

This figure presents bar graphs showing the distribution of acceptance of recession coverage procedures among 250 patients. Overall, only 38% of patients accepted the advised treatment. Female patients had a higher acceptance rate (50%) than males (38.1%). Younger patients (18–30 years) showed greater willingness to undergo the procedure (58.3%) compared to older age groups. Acceptance was highest in Miller Class I recession cases (55.6%), and decreased with increasing severity. These findings highlight the influence of demographic and clinical factors on patient decision-making in periodontal care.

4. Discussion

Gingival recession is one of the most commonly encountered conditions in periodontal practice, with implications for esthetics, sensitivity, and long-term oral health. Despite the availability of effective mucogingival surgical procedures, this study revealed that less than 40% of patients accepted the recommended treatment. This reflects a significant gap between clinical recommendations and patient willingness.



The present study aimed to retrospectively evaluate the acceptance of recession coverage procedures in a dental teaching hospital setting. Among the 250 patients diagnosed with gingival recession, only 38% accepted and underwent the proposed treatment. These findings are noteworthy, especially considering the well-documented predictability and success of recession coverage procedures such as coronally advanced flaps (CAF), connective tissue grafts (CTG), and free gingival grafts (FGG) [1–4].

The acceptance rate in this study is consistent with prior reports that suggest patient willingness to undergo periodontal surgical procedures is often suboptimal, even when clinically indicated [5]. The reasons for this may include a lack of awareness about the consequences of untreated recession, a perception that the condition is asymptomatic, and hesitation toward undergoing surgery. In our sample, many patients refused treatment despite being eligible and appropriately advised, indicating a disconnect between patient perceptions and clinical need.

Gender and Age-Related Trends

Our study found a higher acceptance rate among female patients (50%) compared to male patients (38.1%). This may be attributed to increased esthetic awareness and greater willingness among women to undergo dental treatment for cosmetic concerns, as supported by earlier studies [6]. Males, in contrast, may be more likely to ignore mild symptoms or decline elective procedures unless functionally compromised.

Age also played a critical role in treatment acceptance. Patients aged 18–30 showed the highest acceptance (58.3%), which could be attributed to esthetic motivations, better oral health awareness, and a proactive attitude toward dental care in younger populations [7]. On the other hand, patients over 45 had the lowest acceptance rate (33.3%), possibly due to financial concerns, underlying medical conditions, or a higher threshold for seeking esthetic improvements.

Clinical Classification and Acceptance

When considering recession classification, patients with Miller Class I defects were more likely to accept treatment (55.6%) compared to those with Class II (42.9%) and Class III (33.3%) defects. This trend is logical, as Class I recession defects offer a higher

likelihood of complete root coverage, which can be a motivating factor for both clinician recommendation and patient acceptance [8,9]. As the severity increases, the prognosis becomes less predictable, and patients may be less inclined to undergo procedures with limited esthetic or functional benefits.

Barriers to Acceptance

The most commonly documented reasons for non-acceptance in our review were:

1. **Lack of symptoms** – Many patients did not experience pain or discomfort, leading them to delay or decline surgical correction.
2. **Fear of surgery** – Concerns about post-operative discomfort, bleeding, and healing time discouraged patients.
3. **Cost considerations** – As periodontal plastic procedures are often elective and not emergency treatments, financial constraints were a common barrier.

Similar findings have been reported by Khuller and Sharma [10], who emphasized the importance of thorough patient education to improve understanding and motivation. Patients often weigh perceived benefits against surgical risks and cost, especially when the clinical issue does not interfere with day-to-day life. Dentists and periodontists, therefore, need to proactively communicate the long-term implications of untreated recession, such as progressive attachment loss, root caries, and esthetic compromise.

Clinical and Academic Implications

This study highlights the need for improved patient counseling in academic settings. Periodontal postgraduate students and interns often focus heavily on clinical outcomes but may underestimate the role of communication in case acceptance. Detailed discussions, visual aids, and before-after images can be used to illustrate the benefits of recession coverage and alleviate fears.

Moreover, institutions can consider incorporating brief counseling modules or chairside awareness tools that help convey the importance of early intervention in gingival recession cases. Integration of patient-reported outcome measures (PROMs) into daily practice may also



help clinicians better understand and address individual patient concerns [11].

Strengths and Limitations

A key strength of this study is the relatively large sample size (n=250) and the inclusion of multiple demographic and clinical variables. This allows for meaningful analysis of patterns and trends across age, gender, and clinical categories. However, the retrospective nature of the study does pose certain limitations. For instance, reasons for refusal were not always documented, and patient-specific motivations or concerns could not be explored in depth.

Future studies may benefit from a prospective, mixed-methods design combining clinical data with structured patient interviews or surveys. This would allow for a more nuanced understanding of patient attitudes, cultural influences, and economic factors that influence treatment acceptance.

5. Conclusion

This retrospective study revealed that less than half of the patients advised gingival recession coverage procedures accepted treatment. Acceptance was higher among younger patients, females, and those with Class I recession. The findings emphasize the need for improved patient education and communication to enhance understanding, address concerns, and increase acceptance of periodontal surgical procedures.

Conflict of Interest: The authors declare no conflict of interest.

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