

01-1. Decision making in root coverage using subepithelial connective tissue graft or pedicle flap

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Background

Gingival recession is defined as the location of the marginal tissue apical to the cemento-enamel junction. Gingival recession is caused by restoration, trauma, inadequate oral hygiene, orthodontic movement, frenal pull, and abnormal tooth position. The consequences of a denuded root surface can be hypersensitivity, increased susceptibility to caries, and an unaesthetic appearance.

A variety of periodontal plastic surgical techniques have been developed for successful root coverage procedure. Subepithelial connective tissue graft is considered to be predictable and esthetic as a root coverage technique because it retains blood supply from both the periosteal connective tissue and inner aspect of the flap. Indications for pedicle flap are largely limited, but it does not require donor site and is esthetic.

In this study, denuded roots were covered using subepithelial connective tissue or pedicle flap.

Materials and methods

Four patients who had visited with the chief complaint of root hypersensitivity and gingival recession were treated with root coverage procedures using subepithelial connective tissue graft(tunnel technique) and pedicle flap(semilunar coronally positioned flap). Three of the patients showed Miller Class I and the other patient showed Miller Class III gingival recession prior to the procedures.

Results

Patients with Miller Class I recession defects received semilunar coronally positioned flap and subepithelial connective tissue graft, and all could achieve clinical attachment level and complete root coverage. However, patients with Miller Class III who received subepithelial connective tissue graft obtained just partial root coverage after the first procedure, and through re-operation did the patient achieve the complete root coverage.

Conclusion

In Miller Class I gingival recession, both subepithelial connective tissue graft and semilunar coronally positioned flap could result in complete root coverage, and could satisfy the patients esthetic demands. This study showed that, if used in the appropriate indications, root coverage procedures involving both techniques could result in highly predictable outcome.