Title: Investigation of Tannerella forsythia presence in oral squamous cell carcinoma

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Abstract

Background – Periodontitis is the chronic inflammatory disease characterized by progressive destruction of periodontal tissue. Recent literature evidences shows significant association between periodontal disease and oral cancer. Although the specific mechanisms are unknown, it has been postulated that a damaging inflammatory response mediated by immunological dysregulation in periodontitis may play a role in the development of oral cancer. Tannerella forsythia is one of the key periodontal pathogen that plays vital role in the pathogenesis of chronic adult periodontitis and its significance in the progression of oral cancer has been substantiated by a few in vitro investigations.

Objective - To investigate the presence of Tannerella forsythia in oral squamous cell carcinoma

Materials and Methods - A total of 60 tissue samples were studied in the present research, with 30 samples from oral squamous cell carcinoma and 30 non-cancerous normal tissue samples. The tissue specimens were analysed for the presence of Tannerella forsythia by Reverse Transcription Polymerase Chain Reaction.

Results – 5 oral squamous cell carcinoma tissue samples showed positive amplification for Tannerella forsythia. Control tissue specimens were found to be negative for Tannerella forsythia.

Conclusion – The current study findings indicates the possible role of Tannerella forsythia in the aetiology of oral squamous cell carcinoma.

Key Words: oral cancer, oral squamous cell carcinoma, periodontitis, Tannerella forsythia

References


