NEW CONCEPT IN DENTOFACIAL ESTHETICS:
THE BIOLOGICAL ASPECTS OF ADULT ORTHOPEDIC
FACE MASK THERAPY

(KONSEP BARU DALAM ESTETIKA DENTOFACIAL: ASPEK BIOLOGIS
TERAPI TOPENG BEDAH TULANG DEWASA)

Retno Pudji Rahayu,* Haryono Utomo**

*Department of Oral Biology
**Dental Clinic
Faculty of Dentistry Airlangga University
Jl. Mayjen. Prof, Dr. Moestopo 47. Surabaya.
Telp.0818517914.
E-mail: dhoetomo@indo.net.id

Abstract

Orthopedic face mask has been introduced for more than 100 years ago, however, it is primarily indicated for growing patients. Its effectiveness in adult patients is still questionable. It is thought that in non-growing adults the degree of orthopedic movement is minimal, whether dental movement is more prominent. In addition, there is still controversial, whether patients’ compliance or the existent skeletal growth determines the treatment success. The objective of this study was to propose a new concept for adult orthopedics face mask therapy based on functional and biological mechanisms involved in dentofacial remodeling. Conventional face mask therapy only depended on duration, magnitude and unidirectional elastic forces. In the reviewed case report, the inspiration for a new concept was evolved from the multidirectional forces which were resulted from continuous functional movements (i.e. chewing and speaking) during wearing face mask. These movements may lead to stimulate additional orthopedic or skeletal movements in adult patient. The explanation of this phenomenon could be explained not only by clinical result, but also with the biological mechanism of bone remodeling. In conclusion, regarding to the successful treatment result and its logical biological explanation, this new concept to increase the effectiveness of adult orthopedic face mask therapy is likely.

Key words: orthopedic face mask, adult patient, new concept