

Dental and Oral Health

July 25-27, 2016 Bangkok, Thailand

Expression of MSX2 in ankylosing temporomandibular joint

Benish Aleem¹, Nadia Naseem² and A H Nagi²¹Fatima Memorial College of Medicine and Dentistry, Pakistan²University of Health sciences-Lahore, Pakistan

Ankylosis of the temporomandibular joint (TMJ) is a pathological condition characterized by stiffening or fusion of the joint as a result of which chronic, painless limitations of the joint movement takes place. This fusion may be the result of the fusion of the bones forming the joint or by calcium deposits around the TMJ ligaments. It may be unilateral or bilateral. TMJ ankylosis is a disabling condition that may cause difficulty in mastication, speech and appearance thus causing difficulty in maintaining oral hygiene. In the temporomandibular joint, ankylosis is most frequently caused by poorly-healing severe trauma or infection. However, it can also occur congenitally, or secondary to severe rheumatoid arthritis or to tumors in the area of the TMJ. In congenital cases, or in children in whom the jaw is still growing, ankylosis can arrest the growth of the lower jaw causing facial asymmetry. Hence, this study was designed to describe the morphological changes in an ankylosing temporomandibular joint and predict the recurrence potential by observing the immunohistochemical expression of MSX2 in tissue biopsies. A total No. of 30 cases diagnosed with TMJ ankylosis and requiring surgical correction for the relief of ankylosis have been recruited for the study. The samples were collected from the Maxillofacial Surgery Departments of Mayo Hospital Lahore; Punjab Dental Hospital, Lahore and; Fatima Memorial Hospital, Lahore. Detailed clinical examination findings and patient's interview observations were recorded. Ankylotic tissue was obtained during the primary arthroplastic surgery for the correction of TMJ ankylosis. The resected tissue was fixed in formalin and then decalcified using 7% nitric acid. Then tissue was dehydrated through a graded series of ethanol, embedded in paraffin and sectioned into 5µm thick slices. Microtome was used to cut the sections and slides were prepared and stained with routine Haematoxyline and Eosine and Masson Trichrome stain followed by immunohistochemistry with MSX2, which is a mouse monoclonal antibody, IgG2aKappa, against N-terminal amino acid 1-77 of Human HOX8 used at a concentration of 100µg at 1 mg/ml. The histopathological findings and the immunohistochemical results were recorded.

benish_zubair@hotmail.com

Entrepreneurship in dentistry

Billy Choong Bing Liang

International Medical University, Malaysia

Entrepreneurship is not a job. It is a spirit that drives us to overcome our limits. And, entrepreneurship can only be maintained with passion. We study dentistry because we want to be a dentist. However, as we go through the years in dental university, very often we find that the life of a dentist is not the same as what we thought it would be. Then, some decide to leave the school, some dropped out, but most of us carry ourselves through the course despite the uncertainties. When we finally completed our degree, we face the biggest question in our life: "What now?" I was lucky that I've been mentored actively by multiple world-class international mentors from various faculties (dentistry, business, finance, procurement, marketing, IT and public relation) since I was in my 3rd year of dental school. Those mentors include Dr. Peter Tay (Singapore), Mr. Bernhard Schutte (Chairman of EBM group), Tan Sri Rainer Althoff (Independent Director of Top Glove) and Tan Sri Rafidah Aziz (Chairman of AirAsia X). They helped me to define my passions and incorporate them into dentistry. As a younger person in the dental industry, I would like to encourage the young generation to find their initial entrepreneurial passion, and incorporate that in their daily life as a dentist or dental student. Because I believe, we are the future of the industry.

billy@dentalspecialist.my