3 - Clinical Anatomy

OC-003 - (22721) - ASSESSMENT OF AUTOLOGOUS FAT GRAFT ADMINISTRATION IN HEMIFACIAL MICROSOMIA PATIENTS WITH OR WITHOUT DISTRACTION OSTEOGENESIS

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Studies recommend managing hemifacial microsomia (HFM) based on its classification. This study aims to assess the impact of autologous fat graft (AFG) administration in HFM patients with or without distraction osteogenesis (MDO).

The study divided patients into two treatment groups: AFG-treated (mean age 5.8 ± 3.89 years) and MDO+AFG-treated (mean age 8.8 ± 4.32 years) and compared to an untreated control group (mean age 5.8 ± 3.89 years), each with five patients. Computed tomography scans of the mandible were used for the measurement of the ramus height (MRH), ramus width (MRW), body length (MBL), body height (MBH), chin point deviation (CPD) and occlusion plane angle (OPA) across the three groups.

In the AFG-treated group, fat treatment resulted in significant increases in MRH and MRW, along with significant decreases in CPD and OPA, whereas the increase in the control group was not significant. Similarly, in the MDO+AFG-treated group, fat treatment led to a significant increase in MBL and a significant decrease in OPA, with no significant increase observed in the control group. The mean growth of AFG-treated MRH, MRW, and MBL increased, though not significantly, compared to the untreated group. Additionally, the mean growth of MDO+AFG-treated MRH, MRW, MBL, and MBH did not increase significantly compared to the untreated group.

In the AFG group, AFG significantly improves MRW, MRH, CPD and OPA symmetry and deformity. In the MDO+AFG group, AFG significantly improves symmetry and deformity in the MBL. AFG is a valuable procedure in the management of mild and severe HFM.

Palavras-chave : Hemifacial microsomia, autologous fat graft, distraction osteogenesis