

POSTURAL STOMATOGNATHIC ORIGIN REFLEXES

Alfredo Marino, Philippe Villeneuve, Pierre-Marie Gagey

C.so Palladio n.40 36100 Vicenza, 20, rue des rendez vous Paris

In 1936 Costen , and, in the fifties May, Balters, and others had already tried to find the correlation between occlusion and posture. Around about the same period Baron and Meyer wrote about vertigo sickness of dental origin . Recently Bonnier (1996) demonstrated that bite usage can statistically modify postural control. In recent times many other authors assert that orthostatic posture control can be modified by a change of occlusion. Our hypothesis is that a very precise and very light stimulation put on the stomatognathic apparatus could modify the orthostatic posture control.

MATERIALS AND METHODS The protocol of this first experimental approach was voluntary and very simple: a group of dental surgery patients were registered on a stabilometric platform before and after we put a prosthesis on the labial surface of certain teeth. "The ALPH": we first etched the surfaces of the four superior incisors (12-11-21-22) with acid for ten seconds, rinsed with water and air dried ; then, in the center of the crown, we stuck on the primer Transbond XT and afterwards cured them for ten seconds with a halogen lamp (400 - 500 nm). Dimension of this super thickness: 1mm. height; 2mm. diameter. Study Group: we documented a series of patients that came to the surgery for an orthodontic consultation .Number:58; average age:24.1; sex: male:17; female:41. Symptomatology: T.M.J. problems, Head-ache, Neck-pain, Root-pain, Vertigo. Recording: immediately before and after we bonded the alphas, the patients were recorded, in "open-eyes" and "closed-eyes" situation, on a stabilometric platform Dynatron Dyn 50, according to the standards of the Association Française de Posturologie (Bizzo et al. 1985; A.F.P., 1985). To analyse the signal we used the parameters recorded by the Association Française de Posturologie were the statistical values have been published (A.F.P.1985); that is the medium position of the pressure center according to the axes right - left (X) and forward - backward (Y), the surface of the trust ellipsis containing 90% of the sampled positions of the pressure center (Takagi et al., 1985) and the parameters LFA and VFY as described in "Normes85" (A.F.P. 1985). Statistical Analysis : from the values of the parameters collected before and after we placed the alphas, a comparison appeared at zero of the medium of the differences that manifested themselves by means of the Student t-test.

DISCUSSION

Putting the alphas on the labial surface of the upper incisors of these "dental " patients, has produced a statistically very significant decrease in the LFA (Length as a Function of Area) that evaluates the loss of energy required by the subject to control his orthostatic posture (A.F.P. 1985; Nogoyama et al 1987; Vallier 1994; Imaoka et al. 1997). In this way, a very slight oral stimulation is capable of modifying the orthostatic posture control in a very significant way. As a result of this experimental work, and encouraged by these results, we tried to evaluate the alphas therapeutic effectiveness on patients presenting a postural deficiency syndrome (Da Cunha, 1987). The results of this evaluation have not yet been finalised, but it seems possible to say that the alphas and the bites have a comparable effectiveness for treating, as far as postural disturbances problems are concerned, those which reveal a link with an occlusal anomaly. Moreover, it seemed to us that , in certain conditions, the results obtained with the alphas vary systematically according to the place where they have been placed; this specific effect of the alphas concerning the functioning of the postural system is something really new. At the moment it is clinical evidence that we are also trying to demonstrate scientifically. **CONCLUSION** A very small mechanical stimulation of the labial mucous, produced by a super thickness stuck on the labial surface of the incisors, provokes an important immediate and specific modification of the control of the orthostatic posture. This conclusion of our experiment although coherent with the non-linear dynamic nature of the Quite Standing Balance, needs to be confirmed by other works because it calls in question too many of the explicative models of the therapeutical efficacy of the occlusal bites.