

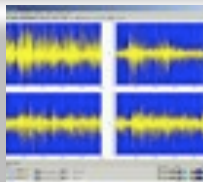
the "sport bite" : a field experience with a professional pilot

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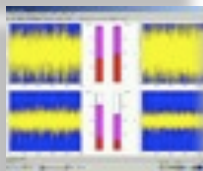
Objectives: The protocol of the clinical and instrumental analysis developed at the gnatology wards of the University of Milan – Bicocca has been applied to the analysis of a professional motorbikes pilot (superstocke 600 championship) with the purpose to evaluate the "Dinamic bite" disposal, ideated by Prof. Franco Magni and Dr. Alberto Castoldi, in collaboration with Mr. Marco Melegari, dental technician.



Material and Methods: A 21 years old pilot, who maintains a constant performance at the top positions of the national rankings, has been submitted to a clinical investigation, including the sports career anamnesis and the evaluation of the oral cavity. Subsequently some instrumental tests have been realized to identify if there is any possible correlation between the dental occlusion, the static and dynamic body posture (even while he is making the athletic motion) and the sport performance, with the purpose to define if, in this context, a bite plane application could be indicated. At the motor racing track of Castelletto (Pavia, Italy) the kinesiography, the electromyography, the stabilometry, the occlusal relief have been realized through the Easy Bite disposal. Moreover some examinations, for instance the SEMG (surface electromyography), have been realized even during the sport performance, using a portable and handheld technology, equipped with a memory card. **Results:** At the clinical level, the subject, asymptomatic and in perfect psychophysical conditions, shows an anomalous postural and malocclusale situation. The baropodometry highlights a descendent interference of occlusal origin, compensated by the Easy Bite. The kinesiographic traces put in evidence that the disharmony in the movements is finalized to a general compensation also oriented to the balance control strategies. The electromyography evaluation shows a high muscle tone (hypertonia) at rest and an asymmetry in the recruitment of the temporal and masseter muscles, compensated by the Easy Bite in orthostatism, but not if it is tested on the motorbike. The elecromyographic test conducted during the motorcycle racing has been documented by a high definition video, with the aim to put the testers in condition to compare the obtained values with the performance phase. The outcome muscle prodding is minor than the expectations. Subsequently a "sport bite" disposal has been applied to the subject and its effects have been re-evaluated through the instrumental tests.



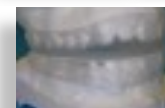
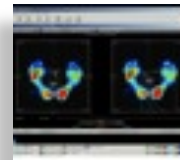
Orthostatic



Performance

centric rel. vs bite

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Discussion: During the motorcycle racing neither the recruitment of the elevator muscles has reached the parafunctional levels, neither it seemed to be useful repositioning the jaw with the head in a hyper extensive position, typical of the speed. Instead, it appeared evident that in orthostatism the bite application is very advantageous. **Conclusions:** The sport-bite allows to compensate the malocclusion efficiently even in very dynamic and variable conditions, such as the agonistic environment of the professional motorcycle racings, but the occlusal postural approach seems to be more useful for the athlete general condition than for the sport performance.

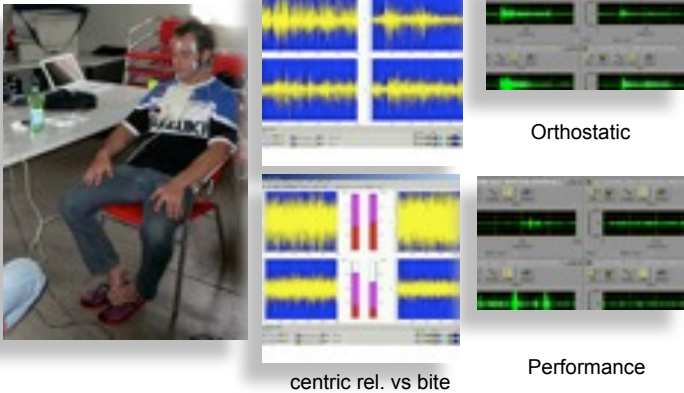
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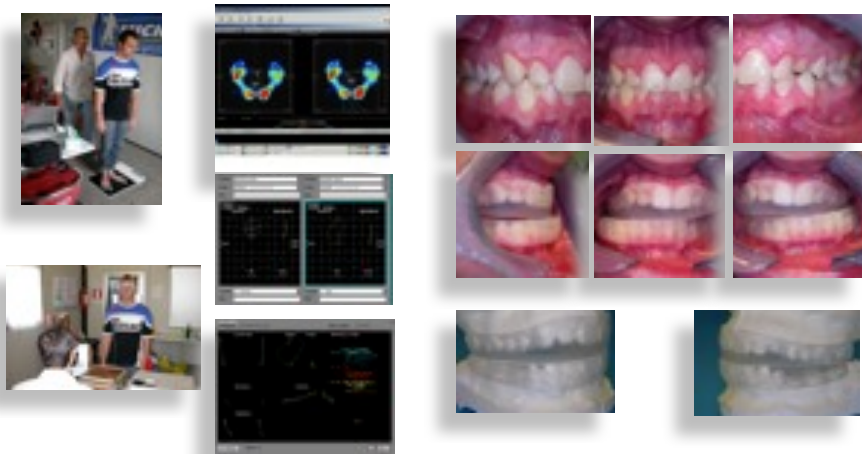
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