ETHICAL CONSIDERATIONS IN ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS

Sorana Maria Bucur*, Manuela Chibelean (Cireş-Mărginean)*, Mariana Păcurar*, Dan Dragoş Sita*, Irina Nicoleta Zetu**

Abstract
Orthodontics and dentofacial orthopaedics is an extremely complex medical specialty that involves the triad doctor - minor patient - legal tutor. Any treatment plan should be supported by clinical and paraclinical determinations and the accurate therapeutic decision must be well reasoned. According to the European Community jurisdiction, the Romanian Law 95/2006 provides that a written consent shall be obtained from patients or legal tutors “in case of undergoing methods of prevention, diagnosis and treatment with potential risk to patients [1] “. It is compulsory to inform them on the medical diagnosis, the proposed treatment with possible alternatives, if any, and of the consequences of treatment compliance or refusal [2]. Information about risks of the proposed treatment, involvement of third parties, therapeutic means, limits of confidentiality and fees is essential [3]. Minor patients must be involved in the decision making process according to their ability of understanding [4,5], the final decision to accept the treatment belonging to parents (the agreement of one of them is sufficient) or to the legal tutor and this consent must be expressed in a written form [1]. The orthodontist will explain the meaning of each item in the informed consent to the signer, taking into account his/her ability of understanding and ensuring that all legal details have been correctly assimilated.

Keywords: ethics, orthodontics, minor patient, informed consent

Corresponding author: Chibelean (Cires-Mărginean) Manuela - e-mail manuelachibelean@yahoo.com

*University of Medicine and Pharmacy, Tîrgu-Mureş, Romania
**“Gr. T. Popa” University of Medicine and Pharmacy, Iaşi, Romania
According to Article 6 of Law 46/2003, "any patient is entitled to be informed of his/her condition, proposed medical interventions, potential risks of each procedure, possible alternatives to the proposed procedures including lack of treatment and disregard of medical recommendations as well as data on diagnosis and prognosis [4]."

Orthodontic practice is dominated by the desire of patients or their parents (in case of minors) to have perfectly aligned teeth and a pleasant smile (Hollywood smile) as final results of treatment. Increasing aesthetic demands, imposed by the society, mark the mind of patients who resort to orthodontic treatment for a better acceptance in the family, workplace, society and increase of self-esteem [6].

Patients miss elements which are important in the orthodontist’s opinion at the end of any treatment: a stable and functional occlusion, correspondence of the arches median lines, stable interdental contact points, appropriate facial report, a harmonious profile, lips appearance, sagittal step below two millimetres and reduction of excessive overbite [7].

Therefore, along with getting teeth alignment, treatment dropout often occurs and the motivation to complete it is almost zero. This, apparently, makes it easier for physicians, especially for junior physicians in this complex specialty that often creates a long-lasting doctor-patient relationship. In time, however, neglecting the above-mentioned objectives associated with unfavourable growth pattern leads to significant functional, periodontal, muscular or joint problems, hardly manageable and even to relapse [8].

Dissensions related to informed consent appear frequently because the treatment does not meet the expectancy of patients who consider a certain issue most important, or of the one that focuses mainly on solving diagnoses that are not so important for patients [2]. For example, in class 2/1 treatment, reduction of sagittal step and correct canine and molar occlusal ratios are important treatment goals for physicians [9]. Functional re-education is also essential, as anomaly etiology may be hereditary or functional [10]: oral breathing, vicious muscular habits and parafuncions of the tongue and lower lip. Without fighting the etiologic factor the orthodontic result is unstable and anomaly will relapse. In case of such an anomaly, it is very difficult to convince patients to have two or often four tooth extractions. Especially for parents, the dentist’s decision to make extractions based on accurate measurements made on radiographies, tele-cephalographies and study models seems absurd and impossible to accept. In such a case we are faced with the decision to either refuse or accept treatment but in the second case we need a written statement from the child's legal tutor related to the refusal of dental extractions. According to Art.13 from Law 46/2003, “the patient is entitled to refuse or stop a medical treatment by assuming in a written form the responsibility for the decision; the consequences of the refusal or stopping the medical acts must be explained to the patient [4].” In this situation the results will be a questionable alignment of teeth, a partial overjet reduction but anyway, the occlusal objectives will not be achieved [11].
Parents and minor patients will be satisfied with the result and with the momentary aesthetic improvement, but the doctor will be deeply disappointed since treatment goals have not been achieved and the anomaly will certainly recur, especially if functional re-education was not achieved because of the poor cooperation of the patient who minimized its importance. From our experience in treating this anomaly we advise our colleagues that in case of patient’s rejection of tooth extractions for therapeutic purposes they should refuse the treatment from the very beginning, the compromise in this case certainly leading to failure.

Even when patients or their parents accept the treatment in the terms imposed by the physician, the results may be below expectations due to natural or accidental factors: abnormal growth tendency, post-extraction healing which hinder tooth movement, etc. The patient may be very satisfied with the treatment which from his/her point of view is completed, while the physician will consider that there would be much more to do for a stable, aesthetic and functional result. Patients may not seem to be bothered by the remaining overjet which is too big, by the increased overbite, by the still disharmonic profile and the remaining interdental spaces. For us, as experts, all these are unsuccessful goals of the treatments which we would like to fix in order to get as close as possible to the ideal. Here the question arises whether we succumb to pressures of those patients who are fully satisfied with the result and who are willing to abandon the treatment while in our opinion the result is not the expected one.

In this case, if the patient or the legal tutor urgently rejects the use of the orthodontic device, especially if we notice an alarming decrease in patient’s cooperation, and it is impossible to persuade him/her to complete the treatment, we should accept the abandon if expressed in a written form and the patient/legal tutor assumes responsibility for any consequences derived from the interruption of the active therapy.

Class II / 2, which has a genetic determinism, responds in a difficult way to treatment, requiring a long lasting therapy [2]. Contention lasts longer, often for life. Stable and functional occlusion is the key treatment also in this case, incisive overbite which is traumatic for the lower incisors’ periodontium should be reduced and the occlusal ratios corrected. In such cases it is very difficult to convince patients about the importance of a long lasting contention. If the patient or the legal tutor refuses the fixing of contention by the physician, disagreeing even with contention by a mobile device, the refusal must be mentioned in writing, as the doctor cannot be held responsible for the occurrence of relapse later.

Class III also has a predominant genetic etiology, seldom functional, having an unfavourable mandible growth pattern or maxilla being hypoplastic [2]. If the treatment was completed before the end of the mandibular growth processes, they can destabilize the results, leading to relapse. Peak bone growth is determined by CVM method (Cervical Vertebral Maturation) [12, 13]. Orthopaedic treatment is indicated as early as possible in childhood [14], functional treatment having optimal results during puberty [13] when bone
growth is at its maximum. Most researchers believe that the optimal treatment is after adolescence. In these circumstances it is necessary to have the legal tutor’s consent to a treatment which involves in most cases the use of two or more types of orthodontic devices, dental extractions performed for therapeutic purposes, a long treatment time, a strong motivation from the patient and parents for final accomplishments and high costs. If interruption of active treatment is requested by the patient or tutor before the completion of the mandible bone growth, the dentist cannot be held responsible for the recurrence of the anomaly, the person who imposed and requested it in writing being to blame.

There are severe orthodontic anomalies when skeletal problems require surgery which is done after a preliminary dentoalveolar orthodontic decompensation. For example, this is the case of a pre-adolescent with a class III anomaly, with an inverted sagittal step of more than 4 mm [2]. When surgery is essential for a correct treatment, patients should be informed objectively, with sound arguments that without these procedures the outcome of the treatment will be just a dentoalveolar one (camouflage of the anomaly), bone bases maintaining a disharmonic ratio, facial profile and aesthetics remaining deeply affected by the presence of this anomaly. The decision to accept or refuse surgery must also be expressed in writing by the patient or by the legal tutor in case of minors. They must also delegate responsibility for carrying out small surgeries in the future - odontectomies of the third molars when the physician considers that their appearance on the dental arches subsequent to the active treatment would compromise the obtained results.

Additional time will be given during the consultation prior to initiating the treatment for the argumentation of the decision of tooth extraction for orthodontic purposes which must be very well motivated and explained to patients or to their legal representatives based on paraclinical examination or if possible, by showing them, on the computer, the evolution of the treatment whether the extractions are carried out or not [2].

Patients should be aware of the importance of monitoring solved cases to prevent relapse and any unexpected problems that may occur and compromise the treatment outcome. By means of the informed consent they must assume responsibility for further check-ups.

Conclusions
1. Treatment plan based on clinical examination, on analysis of the study model and on radiographies is presented and discussed with the patient and his/her legal representative in case of minors.

2. The orthodontist has the responsibility to explain the treatment options and the treatment protocol but as the patient has the right to refuse or accept the doctor’s decision, the latter at his/her turn may refuse the treatment option that does not serve the patient’s interest.

3. The success of the orthodontic treatment is provided by a proper treatment plan, parental consent and patients’ cooperation. If these three parties do not agree, the treatment cannot be started.
4. The final decision of treatment belongs to the physician [2,15]. If during therapy misunderstandings between the involved parties appear and patients or their parents want to interrupt the treatment, this ends with the patient’s or the legal tutor’s signing the refusal written declaration.

Acknowledgement

The paper was partly supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number POSDRU 80641.

References