

O P I N I O N C O L U M N

To extract or not to extract?

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Our training in dental surgery or stomatology has taught us everything we need to know about teeth: their life and works. We afford them care and protection and, as odontologists, reorganization.

Faced by the failure of long-term results for expansion, C. Tweed conceived the idea of extracting healthy dental elements and drew up his drastic rules for the correct position of the mandibular incisor.

Extraction has become consensual, but for some it amounts to voluntary mutilation.

There is thus an open battle between the partisans and opponents of extraction and, beyond that, of the concept of expansion.

Ricketts was one of the first to question Tweed, whom he found far too extractionist; he was not exactly challenging the concept itself, but defined an area of equilibrium, integrating function. Others, such as Korn, took up more extreme positions, describing more or less extractionless approaches, with a conservationist, natural, "organic" attitude more in line with the Zeitgeist: conserving what nature has bestowed on us is pure benefit...

What is wanted, however, is precisely to change what Mother Nature provided!

So, how to justify extraction?

The treatment decision should be guided by the risk/benefit ratio (presuming here that the decision to undertake orthodontic treatment has a positive risk/benefit value).

Assessment of extraction risk begins with the risks incurred by surgery. Moreover, extraction represents an immediate, definitive and irreversible loss of dental substance; benefit has therefore to match this loss, or the risks entailed by abstention have to be unacceptable.

Are there other risks associated with extraction?

Yes: the time needed to achieve extraction space closure makes interruption of treatment problematic. The patient's acceptance of treatment is therefore essential, and alternative solutions and their consequences should be presented. The risk of root resorption should also be taken into account, as extraction entails considerable radicular movement, especially in molar extraction.

The question of stability is not resolved by extraction. Little demonstrated that, statistically, instability of incisor alignment is a fact. It is a real problem, as this alignment

is precisely what is important for the patient!

So, what are the benefits of extraction?

The space created by extraction allows arcade expansion to be limited or done without. Extraction absorbs crowding, helps correct discrepancies, and promotes the development of third molars.

The question of expansion versus extraction is thus at the heart of decision-making.

Can expansion be performed with impunity?

The risk of weakening the gums by expansion is serious, although poorly assessed in the literature, whence the controversy. Clinical experience in my view counsels caution; this is my own opinion, and is not evidence-based: failure leaves a deeper trace than success, and time teaches prudence.

Expansion also shows limitations in terms of stability. Definitive contention, pragmatically speaking, shows how artificial the correction is and, above all, makes stability conditional on long-term follow-up and thus on compliance on the part of the patient, who can always be accused of negligence.

Resort to extraction can be limited nowadays. There are other solutions such as enamel reduction, which frees considerable space but requires strict rules to be followed. Bone anchorage allows distalization, which protects the anterior region, but also condemns third molars. Combining these various

techniques, resort to extraction can be limited. The alternatives have their own constraints, which should be explained to the patient in choosing an option in the light of the choices available and the wishes of the patient, who will have to play his or her part in the treatment contract.

In conclusion, I am not arguing for one point of view, but rather seek to open an undogmatic conversation centered on the patient. To complexity of diagnosis is added the wide range of treatment options, allowing the treatment plan to be adapted to clinical and prognostic criteria and to the patient's demand.

Risk/benefit analysis is not just a matter of probabilities. We need to imagine the worst and warn the patient, and to respect his or her decision not to run a risk, however improbable it may be.

Abstention from extraction is the conservative attitude, and room for maneuver is small. The risk of iatrogenesis, mainly to the gums, may show up at any time in the short to medium term.

Deciding to extract is a technical choice: the resulting space enables control of dental movement within the envelope of periodontal movement. Iatrogenic risk is basically limited to the period of active treatment.

Consequently, the decision to extract or not to extract is not an a-priori issue. It should be the result of deep reflection, adapted to the patient, taking account of anatomic, medical and psychological criteria and our own level of skill.