Risk management after orthognatic surgery
- from the orthodontist‘s view -

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92st Congress of the European Orthodontic Society
Stockholm, Sweden, June 2016

Aim

In this examination we identify and systemize postoperative risks and problems of orthognatic surgery to define the orthodontist‘s role in such cases.

Materials (Subjects) and Method

Up to 80 cases of orthognatic surgery are treated in the authors‘ office per annum. Sometimes postoperative problems appear to be evaluated and treated. Is it possible to systemize these risks in a qualitative way and to define the special roles of the orthodontist and the surgeon? We tried to build a matrix added with a classification in some cases.

problem / risk	orthodontic treatment	orthodontic/surgical treatment	surgical treatment
bad split (caput / collum)			1.surgical fixation
		2. extended splinting / immobilisation with splint	
	3. without significant dislocation: conservative / activator to keep the vertical dimension		
easing of screws / fracture osteosynthesismaterial early		extended immobilisation / continuous splintcontrol	surgical reattachment
easing of screws late	monitoring splint / occlusion conservative / early screws-ex		
easing of TPD early (TPD - Trans Palatal Distractor)	reattachment of screw (if possible)		
			surgical refixation
easing of TPD late	TPA		
	2 paramedian bone-born locked TADs		
	Hybridhyrax		
			surgical refixation
insufficient occlusion due to unpropicious splint	splint modification		
	splint ex		
insufficient occlusion in spite of appropriate splint design - moderate	elastics		
	splint modification		
... - severe	elastics		
	enhanced dentoalveolar compensation (where appropriate with premolar - or incisor extraction)		
	acceptance of compromise treatment outcome		
			re-surgery
infection / inflammatory process	lavage flop / drainage antibiosis if necessary		surgical routine treatment
allergic reaction (for example elastics, etc.)	change to hypoallergical material		

Results

The Matrix of risk management relating to orthognatic surgery is a tripartition one: only orthodontic, combined orthodontic-surgical and only surgical intervention.

The theoretical view identified the orthodontist as the gatekeeper to initiate the suitable intervention for the patients. The communication among orthodontist and surgeon is the pre-condition.

Conclusion

In a former survey the main author veryfied the part of the orthodontist as the patients’ essential contact in combined therapy. The systematical look at the postsurgical risk management proves this role.

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