Reference

Seidl, T., Lohmaier, J., Hölker, T., Funk, J., Placzek, R., Trouillier, H. H.

Centrum für Muskuloskeletale Chirurgie, Sektion Kinder- und Neuroorthopädie, Charité-Universitätsmedizin Berlin, Campus Virchow-Klinikum, Berlin.

Die Tübinger Hüftbeugeschiene als Repositionsorthese?

(Reduction of unstable and dislocated hips applying the Tübingen hip flexion splint)

Der Orthopäde 2012; 41: 195-199.

Products

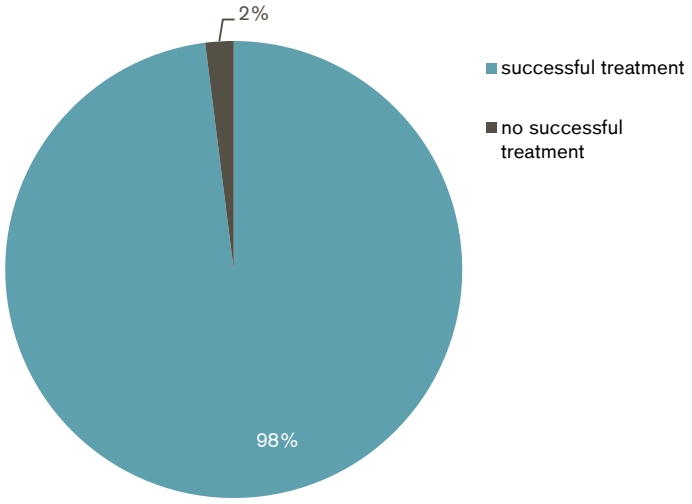
Tübingen hip flexion splint

Major Findings

With Tübingen hip flexion splint:

- → **98% of hips were successfully treated (successfully converted into type I hips with an α-angle of more than 64° in the splint)**
  Mean time for achieving an α-angle ≥ 64°: 51.6 ± 18.9 days
- → **2% of hips (type IV hip) could not be reduced**
- → **No significant relationship between duration of therapy and time when treatment was started if start of treatment was within the first week of life**
- → **No correlation between duration of therapy and initial hip type**

Amount of successful treatment of hip dysplasia with the Tübingen hip flexion splint

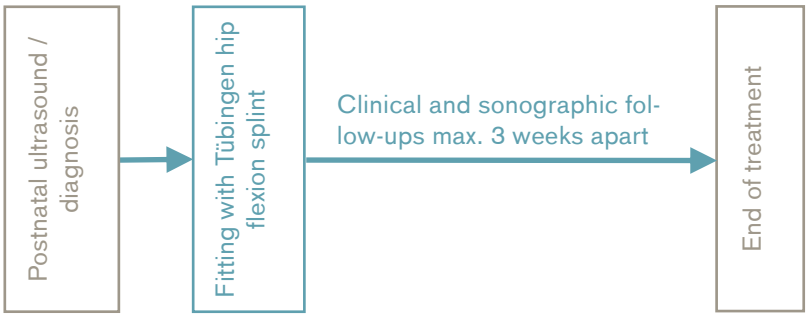


Population

Subjects:	42 newborns with 50 hips requiring treatment 35 female, 7 male
Hip dysplasia:	34 unilateral, 8 bilateral Type (according to Graf): IIc unstable (6), D (33), IIIa (10), IV (1)

Study Design

Prospective cohort study:



Results

Functions and Activities						Participation
Biomechanics – Static measures	**Biomechanics – Gait analysis**	**X-Ray**	**EMG**	**Functional tests**	**Clinical effects**	**Satisfaction**

Category	Outcomes	Results for Tübingen hip flexion splint		Sig.*
Clinical effects	Classification of Graf	98% of unstable or decentered hips were successfully treated		n.a.
		2% of hips (type IV) could not be treated successfully		n.a.
	Mean age at beginning of therapy	3.5 days		n.a.
	Duration of therapy	Mean	51.6 ± 18.9 days	n.a.
		Beginning of therapy	*Duration*	0
		day 1 – 4	49.8 ± 18.6 days	
		day 5 – 8	59.7 ± 19.5 days	
		Type of hip dysplasia	*Duration*	0
		IIc unstable	54.0 ± 17.0 days	
		D	50.9 ± 18.9 days	
		III	52.6 ± 21.9 days	

* no difference (0), positive trend (+), negative trend (-), significant (++/--), not applicable (n.a.)

Author's Conclusion

"When recognized within the first week of life dysplastic unstable hips (type IIc unstable according to the classification of Graf) and dislocated hips with a cranially dislocated cartilage roof (types D and III according to the classification of Graf) can be successfully treated with the Tübingen hip flexion splint provided that the parents show good compliance concerning the treatment regimen." (Seidl et al. 2012)