

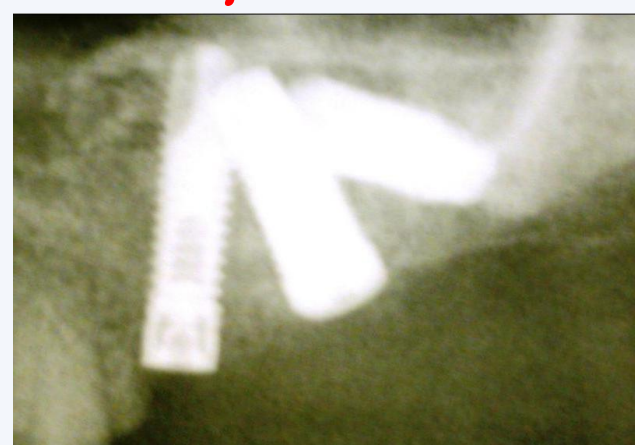
SINUS LIFT SHOULD BE AVOIDED IN THE MAJORITY OF CASES

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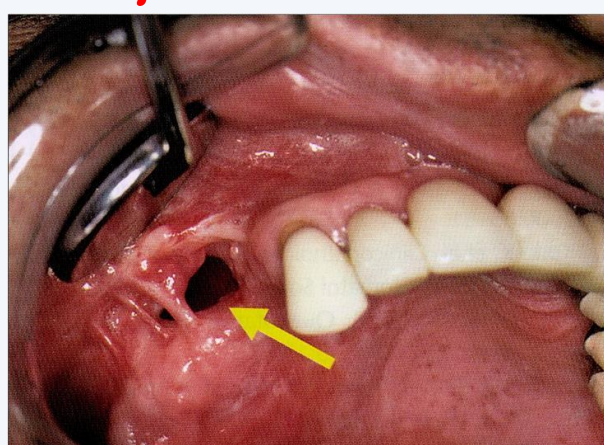
Background

The rehabilitation of the edentulous maxilla is very often a complicated procedure in those patients who desire for non removable prosthesis. Very often the placement of implants in the posterior maxilla is impossible without prior bone grafting, in the maxillary sinus. The procedure is contraindicated almost in 20% of cases due to pathology in the sinus, or problematic anatomy of the sinus. Furthermore the morbidity, complications, and failure rates must be considered, and alternative treatment options should be developed.

Complications of sinus lift procedure



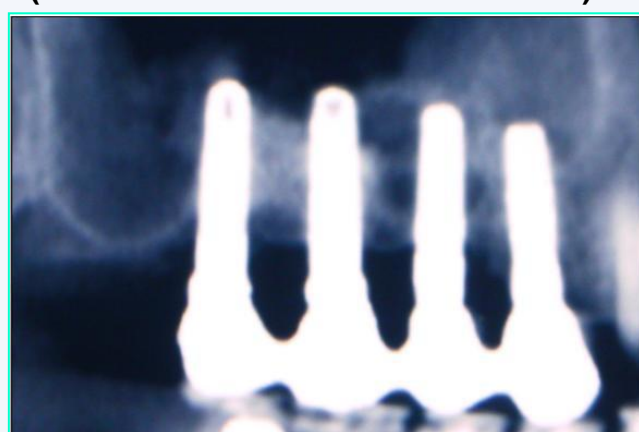
Migration of implants in necrotic bone



Oro-antral fistula
(The Sinus Bone Graft-Ole T. Jensen)



Poor bone quality gained – Only 15%-30% bone tissue after 6-12 months
(The Sinus Bone Graft-Ole T. Jensen)



Loss of bone graft after 5 years

Why Sinus Lift surgery should be avoided whenever possible?

- Invasive surgery
- Complications are not rare and not easy to be treated
- Predictability is questionable
- Prolonged treatment time
- Contra-indicated in pathology and in complicated anatomy of the sinus cavity
- Contra-indicated in medically compromised patients
- Poor bone quality gained
- Immediate function is impossible

Aim of the study

The objective of this study is to evaluate the surgical outcome of Tilted Implants as alternative to Sinus Lift.

Survival rate of Tilted implants as reported in the literature

Krekmanov et al.	2000	97.5 %
Aparicio et al.	2001	95.2 %
Malo et al.	2005	100.0 %
Calandriello R.	2005	96.7 %
Rosen et al.	2007	97.0 %
Testori et al.	2008	98.1 %
Francetti L.	2008	100.0 %
Agliardi E.	2009	98.6 %
Weinstein R.	2010	100.0 %

Success rate of 95.3 % - 100 % was reported

Methods and Materials

241 patients were participated in this clinical study. All the patients were restored without prior sinus lift, by the use of 372 Tilted implants. The Tilted implants were placed in extreme angularity up to 45 degree located mesially to the maxillary sinuses. The patients were followed periodically for 6-72 months after the surgery, with clinical and radiographic evaluation.

Results

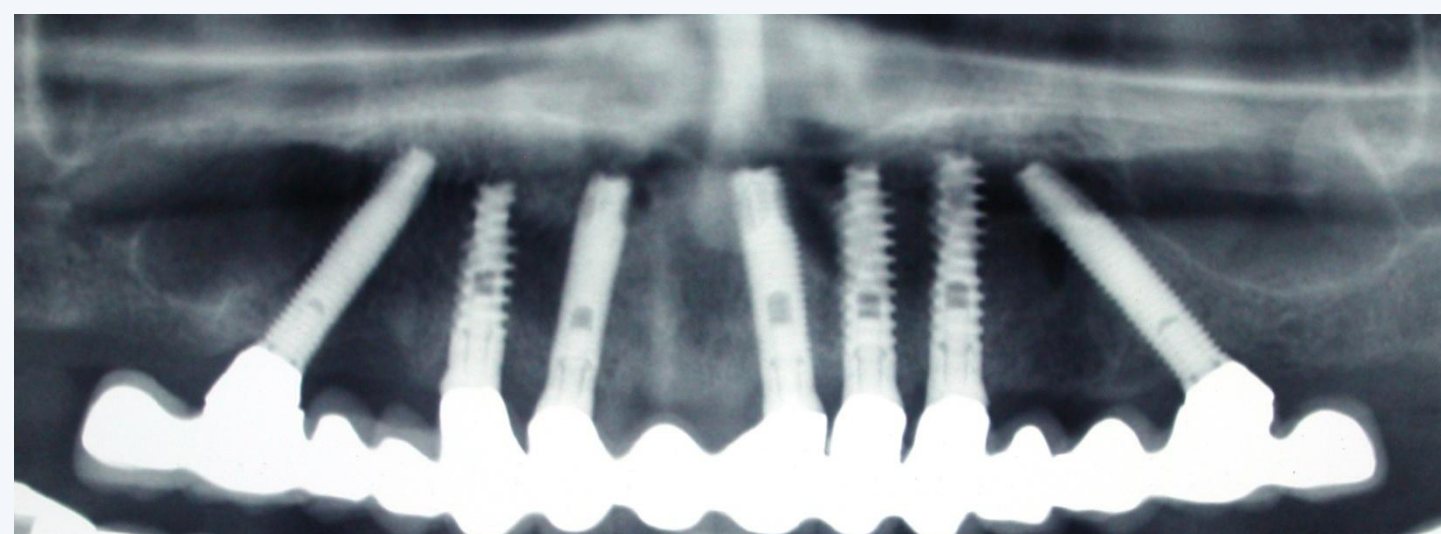
The cumulative survival rate (CSR) of the tilted implants was 97.98%, which is significantly higher than the CSR of implants after Sinus Lift procedure.

No morbidity nor severe complications were occurred in this protocol of treatment.

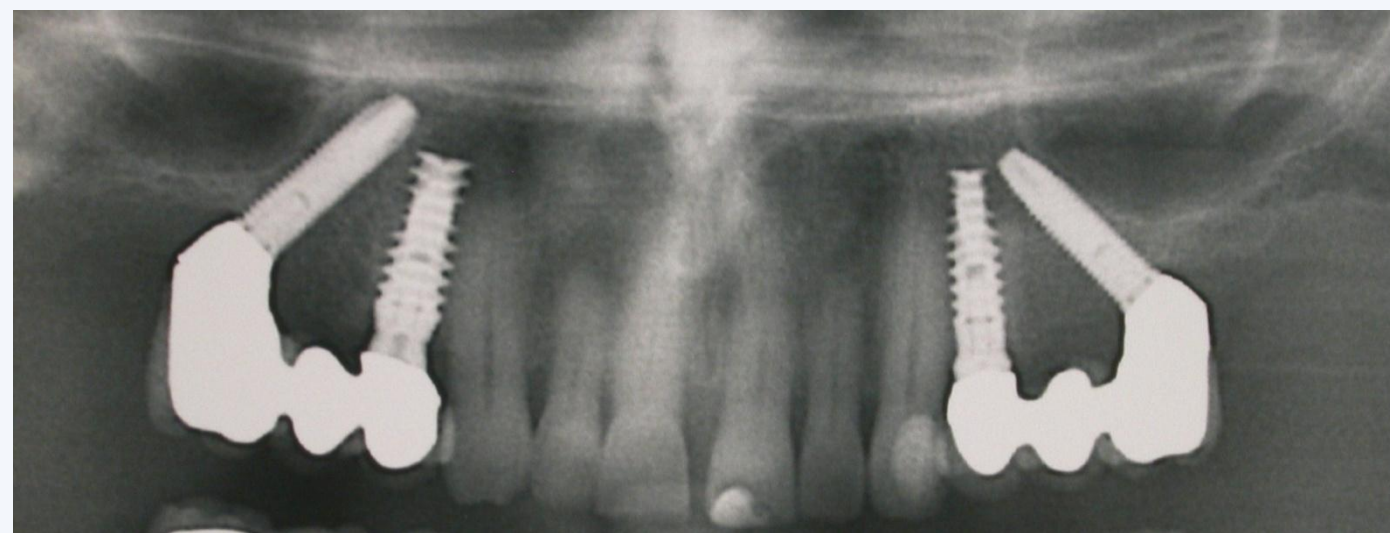
Patients :	241
Average age:	59 years
Tilted implants:	372
Follow up period:	6-72 months
Mean follow up period:	33 months
CSR of tilted implants:	97.98 %

Success rate of treatment: 100 % (after re-implantation of failed implants).

No morbidity nor severe complications were occurred



131 full maxillary arch (262 sinus lifts were avoided)



110 partial posterior segments (220 sinus lifts were avoided)

Cumulative Survival Rates of Tilted implants in comparing With Axial implants, and according to the type of implantation

	Delayed Loading	Immediate Loading	Immediate Implantation	Imm. Implantation with Imm. Loading
Tilted Implants	97.22 %	97.28 %	97.98 %	98.53 %
Axial Implants	97.95 %	97.53 %	97.99 %	97.29 %

Length of final full arch with 1 distal cantilever each side :	93.5 % of cases received full arch without prior grafting
10 teeth arch – 2 nd premolar occlusion -	6.5 % of cases
12 teeth arch – 1 st molar occlusion -	61.0 % of cases
14 teeth arch - 2 nd molar occlusion -	32.5 % of cases

Conclusions

Graftless rehabilitation of the atrophied maxilla, with the use of tilted implants to support fix prostheses, can be considered as a predictable technique, with an excellent prognosis and with considerable benefits.

Sinus grafting should be considered as an overtreatment in the majority of cases, and should be therefore avoided.

References

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