

Documentación clínica sobre el sistema de implantes ANKYLOS®

El sistema de implantes ANKYLOS presenta varias características básicas, entre las que se incluyen la conexión implante-pilar cónica sellada por fricción, el intercambio de plataforma inherente al sistema y la superficie microrrugosa del cuello del implante. El sistema se ha utilizado en diferentes indicaciones clínicas durante más de 25 años.

Los datos publicados demuestran que la colocación de implantes ANKYLOS constituye un tratamiento seguro y predecible en ambos maxilares para indicaciones como: restauraciones de dientes unitarios¹⁻¹², prótesis fijas parciales o completas¹¹⁻¹⁵ y sobredentaduras^{11,16-19}. Además, se cuenta con resultados clínicos publicados para implantes colocados inmediatamente en alveolos postextracción^{6,8,17,20-22}, en lechos injertados^{23,24} y cuando se usa un procedimiento quirúrgico de una fase seguido de carga inmediata^{6-8,13,14,16,17,20-22,25-37}.

Los estudios clínicos con un periodo de seguimiento de entre 1 y 8 años indican la seguridad de uso de los implantes ANKYLOS, con altos índices de supervivencia que oscilan entre el 94 y el 100%^{3-11,13,14,16-18,20-36,38-42}. La seguridad clínica se ve confirmada adicionalmente en un estudio retrospectivo que incluye más de 12.500 implantes ANKYLOS con hasta 20 años de seguimiento clínico documentado⁴³.

Asimismo en varios estudios se ha documentado la buena estabilidad primaria de los implantes ANKYLOS^{1,26-29,44}. Se han presentado valores medios de torque de inserción que oscilan entre 28,8 y 47,5 Ncm, incluso para los implantes de diámetro 3,5 mm^{8,26-28,45}. Por otra parte, se indica también un alto nivel de satisfacción de los pacientes^{2,21}.

Varios estudios clínicos publicados presentan cambios medios en el nivel de hueso marginal alrededor de los implantes ANKYLOS después de 1 año^{7,9,23,46,47} (rango 0,01 a -1,32 mm), de 2 años^{13,20,26} (rango +0,21 a -0,78 mm) y de 3 años¹² en función (-0,6 mm).

1. Morris HF, Ochi S, Orenstein IH, et al. AICRG, Part V: Factors influencing implant stability at placement and their influence on survival of ANKYLOS implants. *J Oral Implantol* 2004;30(3):162-70.
2. Morris HF, Ochi S, Rodriguez A, et al. AICRG, Part IV: Patient satisfaction reported for ANKYLOS implant prostheses. *J Oral Implantol* 2004;30(3):152-61.
3. Morris HF, Ochi S, Crum P, et al. AICRG, Part I: A 6-year multicentered, multidisciplinary clinical study of a new and innovative implant design. *J Oral Implantol* 2004;30(3):125-33.
4. Doring K, Eisenmann E, Stiller M. Functional and esthetic considerations for single-tooth ANKYLOS implant-crowns: 8 years of clinical performance. *J Oral Implantol* 2004;30(3):198-209.
5. Romanos GE, Nentwig GH. Single molar replacement with a progressive thread design implant system: a retrospective clinical report. *Int J Oral Maxillofac Implants* 2000;15(6):831-6.
6. Degidi M, Daprile G, Nardi D, et al. Immediate provisionalization of implants placed in fresh extraction sockets using a definitive abutment: the chamber concept. *Int J Periodontics Restorative Dent* 2013;33(5):559-65.
7. Abboud M, Koeck B, Stark H, et al. Immediate loading of single-tooth implants in the posterior region. *Int J Oral Maxillofac Implants* 2005;20(1):61-8.
8. Degidi M, Nardi D, Daprile G, et al. Nonremoval of immediate abutments in cases involving subcrestally placed postextractive tapered single implants: A randomized controlled clinical study. *Clin Implant Dent Relat Res* 2013;E-pub March 6, doi:10.1111/cid.12051.
9. Koutouzis T, Neiva R, Nonhoff J, et al. Placement of implants with platform-switched morse taper connections with the implant-abutment interface at different levels in relation to the alveolar crest: a short-term (1-year) randomized prospective controlled clinical trial. *Int J Oral Maxillofac Implants* 2013;28(6):1553-63.
10. Rinke S, Roediger M, Eickholz P, et al. Technical and biological complications of single-molar implant restorations. *Clin Oral Implants Res* 2014;E-pub Mar 29, doi:10.1111/clr.12382.
11. Nentwig GH. ANKYLOS implant system: concept and clinical application. *J Oral Implantol* 2004;30(3):171-7.
12. Chou CT, Morris HF, Ochi S, et al. AICRG, Part II: Crestal bone loss associated with the ANKYLOS implant: loading to 36 months. *J Oral Implantol* 2004;30(3):134-43.
13. Bressan E, Lops D. Conometric retention for complete fixed prosthesis supported by four implants: 2-years prospective study. *Clin Oral Implants Res* 2014;25(5):546-52.
14. Romanos GE, Nentwig GH. Immediate versus delayed functional loading of implants in the posterior mandible: a 2-year prospective clinical study of 12 consecutive cases. *Int J Periodontics Restorative Dent* 2006;26(5):459-69.
15. Rinke S, Ohl S, Ziebolz D, et al. Prevalence of periimplant disease in partially edentulous patients: a practice-based cross-sectional study. *Clin Oral Implants Res* 2011;22(8):826-33.
16. Shaarawy MA, Aboelross EM. The effect of varying implant position in immediately loaded implant-supported mandibular overdentures. *J Oral Implantol* 2013;39(3):345-54.
17. Eccellente T, Piombino M, Piattelli A, et al. A new treatment concept for immediate loading of implants inserted in the edentulous mandible. *Quintessence Int* 2010;41(6):489-95.
18. Frisch E, Ziebolz D, Ratka-Kruger P, et al. Double crown-retained maxillary overdentures: 5-year follow-up. *Clin Implant Dent Relat Res* 2013;E-pub May 18, doi:10.1111/cid.12087.
19. Ahmad R, Abu-Hassan MI, Li Q, et al. Three dimensional quantification of mandibular bone remodeling using standard tessellation language registration based superimposition. *Clin Oral Implants Res* 2012;24(11):1273-9.
20. Crespi R, Cappare P, Gherlone E. Radiographic evaluation of marginal bone levels around platform-switched and non-platform-switched implants used in an immediate loading protocol. *Int J Oral Maxillofac Implants* 2009;24(5):920-6.
21. Eccellente T, Piombino M, Piattelli A, et al. Immediate loading of dental implants in the edentulous maxilla. *Quintessence Int* 2011;42(4):281-9.
22. Romanos GE, May S, May D. Immediate loading of tooth-implant-supported telescopic mandibular prostheses. *Int J Oral Maxillofac Implants* 2012;27(6):1534-40.
23. Koutouzis T, Fetner M, Fetner A, et al. Retrospective evaluation of crestal bone changes around implants with reduced abutment diameter placed non-submerged and at subcrestal positions: the effect of bone grafting at implant placement. *J Periodontol* 2011;82(2):234-42.
24. Luo ZB, Zhang QB, Zhang ZQ, et al. Performance of coralline hydroxyapatite in sinus floor augmentation: a retrospective study. *Clin Oral Investig* 2013;17(9):2003-10.
25. Abboud M, Wahl G, Guirado JL, et al. Application and success of two stereolithographic surgical guide systems for implant placement with immediate loading. *Int J Oral Maxillofac Implants* 2012;27(3):634-43.
26. Degidi M, Nardi D, Piattelli A. Prospective study with a 2-year follow-up on immediate implant loading in the edentulous mandible with a definitive restoration using intra-oral welding. *Clin Oral Implants Res* 2010;21(4):379-85.
27. Degidi M, Nardi D, Piattelli A. One abutment at one time: non-removal of an immediate abutment and its effect on bone healing around subcrestal tapered implants. *Clin Oral Implants Res* 2011;22(11):1303-07.
28. Degidi M, Nardi D, Sighinolfi G, et al. Immediate rehabilitation of the edentulous mandible using ANKYLOS SynCone telescopic copings and intraoral welding: A pilot study. *Int J Periodontics Restorative Dent* 2012;32(6):e189-94.
29. Romanos GE, Gaertner K, Nentwig GH. Long-term evaluation of immediately loaded implants in the edentulous mandible using fixed bridges and platform shifting. *Clin Implant Dent Relat Res* 2013;E-pub Jan 12, doi:10.1111/cid.12032.
30. Donovan R, Fetner A, Koutouzis T, et al. Crestal bone changes around implants with reduced abutment diameter placed non-submerged and at subcrestal positions: a 1-year radiographic evaluation. *J Periodontol* 2010;81(3):428-34.
31. May D, Romanos GE. Immediate implant-supported mandibular overdentures retained by conical crowns: A new treatment concept. *Quintessence Int* 2002;33(1):5-12.
32. Romanos GE, May S, May D. Treatment concept of the edentulous mandible with prefabricated telescopic abutments and immediate functional loading. *Int J Oral Maxillofac Implants* 2011;26(3):593-7.
33. Romanos GE, May S, May D. Implant-supporting telescopic maxillary prostheses and immediate loading. *Clin Implant Dent Relat Res* 2014;16(3):412-8.
34. Romanos GE, Nentwig GH. Immediate loading using cross-arch fixed restorations in heavy smokers: nine consecutive case reports for edentulous arches. *Int J Oral Maxillofac Implants* 2008;23(3):513-9.
35. Romanos GE, Gaertner K, Aydin E, et al. Long-term results after immediate loading of platform-switched implants in smokers versus nonsmokers with full-arch restorations. *Int J Oral Maxillofac Implants* 2013;28(3):841-5.
36. Romanos GE, Malmstrom H, Feng C, et al. Immediately loaded platform-switched implants in the anterior mandible with fixed prostheses: A randomized, split-mouth, masked prospective trial. *Clin Implant Dent Relat Res* 2013;E-pub April 5, doi:10.1111/cid.12065.
37. Wittwer G, Adeyemo WL, Wagner A, et al. Computer-guided flapless placement and immediate loading of four conical screw-type implants in the edentulous mandible. *Clin Oral Implants Res* 2007;18(4):534-9.
38. Morris HF, Winkler S, Ochi S, et al. A new implant designed to maximize contact with trabecular bone: survival to 18 months. *J Oral Implantol* 2001;27(4):164-73.
39. Romanos GE, Nentwig GH. Immediate functional loading in the maxilla using implants with platform switching: five-year results. *Int J Oral Maxillofac Implants* 2009;24(6):1106-12.
40. Morris HF, Ochi S, Plezia R, et al. AICRG, Part III: The influence of antibiotic use on the survival of a new implant design. *J Oral Implantol* 2004;30(3):144-51.
41. Romanos GE, Aydin E, Gaertner K, et al. Long-term results after subcrestal or crestal placement of delayed loaded implants. *Clin Implant Dent Relat Res* 2013;E-pub May 17, doi:10.1111/cid.12084.
42. Frisch E, Ratka-Kruger P, Wenz HJ. Unsplinted implants and teeth supporting maxillary removable partial dentures retained by telescopic crowns: a retrospective study with >6 years of follow-up. *Clin Oral Implants Res* 2014;E-pub April 17, doi:10.1111/clr.12407.
43. Krebs M, Schmenger K, Neumann K, et al. Long-term evaluation of ANKYLOS dental implants, Part I: 20-year life table analysis of a longitudinal study of more than 12,500 implants. *Clin Implant Dent Relat Res* 2013;E-pub Sep 2013, doi:10.1111/cid.12154.
44. Morris HF, Winkler S, Ochi S. The ANKYLOS endosseous dental implant: assessment of stability up to 18 months with the Periostest. *J Oral Implantol* 2000;26(4):291-9.
45. Rabel A, Kohler SG, Schmidt-Westhausen AM. Clinical study on the primary stability of two dental implant systems with resonance frequency analysis. *Clin Oral Investig* 2007;11(3):257-65.
46. Degidi M, Daprile G, Nardi D, et al. Buccal bone plate in immediately placed and restored implant with Bio-Oss(R) collagen graft: a 1-year follow-up study. *Clin Oral Implants Res* 2013;24(11):1201-5.
47. Shin YK, Han CH, Heo SJ, et al. Radiographic evaluation of marginal bone level around implants with different neck designs after 1 year. *Int J Oral Maxillofac Implants* 2006;21(5):789-94.

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