INSTITUTO SUPERIOR DE CIÊNCIAS DA SAÚDE EGAS MONIZ

Indirect Resin Composite in Anterior Rehabilitation (Pressed Resin)

Argolinha, I; Rua, J; Machado, V; Botelho, J; Antunes, MJ.*

CASEREPORT

Male patient with 71 years old referred as main complaint that failing to eat properly. He was upper total edentulous and lower partial edentulous, showing severe wear attrition of the remaining teeth (42, 41, 31, 32, 33). The patient had an inadequate upper acrylic denture. We proposed the rehabilitation of the remaining teeth with the adhesion of indirect composite resins and the rehabilitation of the upper arch with a conventional acrylic resin denture and the mandibular rehabilitation with a new flexible acrylic resin denture.

Photo nº 1. Inicial case, extra-oral photos

Photo nº 2. Inicial case, intra-oral photos

Photo nº 3. Inicial case, intra-oral photos (Lower arch).

MATERIALSandMETHODS

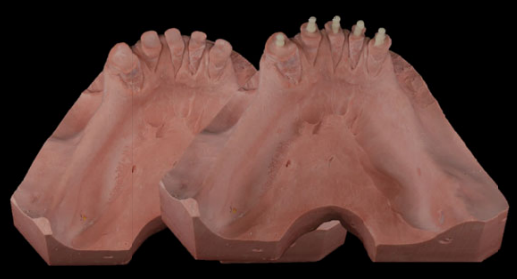

Photo nº 4. models and early diagnostic wax. Molds made already with IDS.

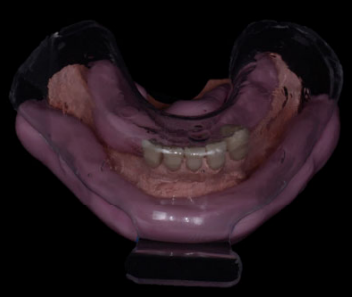

Photo nº 5. Transparent tray adaptation to the model (leaving enough space in labial, lingual and incisal aspect for silicone)

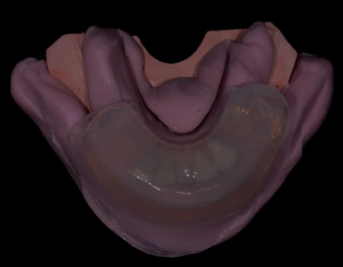

Photo nº 6. Transparent silicone key (Transil R, Ivoclar Vivadent) on Waxing

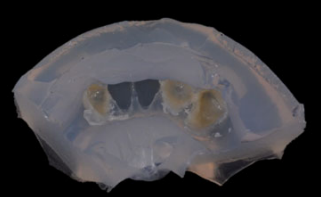

Photo nº 7. Placing the enamel (EA3; Filtek ™ Supreme XT, 3M ESPE) without polymerize.

Photo nº 8. Placing the dentine (DA 3.5, Filtek ™ Supreme XT, 3M ESPE) without polymerize

Photo nº 9. Heated Resin in the key and then pressed on the model. Light curing for 40 sec. each side.

Photo nº 10. Model with the five separated resin fragments and excesses removed. Confirmation of Contact points and the adaption to the model. (Before polishing)

Photo nº 11. Confirmation of Contact points and the adaption to the teeth. (Before polishing)

Photo nº 12. Polishing of fragments with discs Sof-Lex ™ (3M ESPE) and polishing kit Lava Ultimate Kit (DiaShine®)

Photo nº 13. Aspect of tooth preparation on the adhesion appointment. Sandblasting IDS with CoJet ™ (3M ESPE).

Photo nº 14. Aspect of tooth preparation on the adhesion appointment. After Sandblasting IDS

Photo nº 15. Aspect of tooth preparation on adhesion appointment. Ortho Phosphoric acid 37%. Washing and drying and subsequent placement of the adhesive (OptiBond ™ FL of KERR) without light cure.

Photo nº 16. Fragments preparation protocol: Sandblasting with CoJet ™ (3M ESPE), phosphoric acid 37%, US bath (in 95% alcohol), Silane (Monobond Plus), Bond (OptiBond ™ FL of KERR).

Photo nº 17. Immediately after adhesion with heated resin (Z100, A3, 3M ESPE).

Photo nº 18. Final Case, extra-oral photos.

Photo nº 19. Final Case, intra-oral photos

Photo nº 20. 4 weeks control (labial aspect)

Photo nº 21. 4 weeks control (Lingual aspect)

DISCUSSION

In the past few years, Dentistry has following a conservative way. With new adhesion techniques we are able to select, even in severe cases of tooth wear, procedures rather than classic 360 degrees crowns. The utilization of indirect composite resins allows the functional and aesthetic reestablishment of teeth and decreasing the costs for the patient, however, clinical protocols became more complex. Indirect resins, made on dental models, have been more used due to the decrease of polymerization contraction, easy technique with improved anatomy, better polishing, and stronger contact points. There are significant mechanical properties improvements of indirect resins, because of the higher monomer conversion rate. The technique used in this case (silicone key) enable the dentist to present a viable and easy making alternative, allowing the function and aesthetic in severe teeth wear cases.

CONCLUSION

With this technique we were able to achieve adequate aesthetic and function in a short space of time and with less costs for the patient.

Bibliography

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