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Prosthodontics III

**University of Jordan**

**Faculty of Dentistry**

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Hand Out

Slide

Sheet



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In direct-indirect method, we get the advantage of the indirect technique that we work on the lab not when the patient on the chair, also get the advantage that the patient will go home with his denture. but still we have disadvantage that we use monomer intraorally . so it is better than before but still we did not maximize the advantage that we need.

 Slide 29: The last one and the best method we reach is indirect direct method, we start indirectly then we continue directly..

Instead of doing resin coping intraorally which is the main disadvantage of direct-indirect method, we do it on the die. We take regular impression, then we do resin coping, then we transfer coping to the mouth just we reline it around clasp and rest seat we take the details by it.

This method is the most widely used because we avoid using resin intraorally and we avoid the reaction that happens.

Only disadvantage in this method is that it has one more clinical step .how?

The first clinical step is doing preparation for two crowns then we take impression, in the lab we do resin coping but l don’t have any idea where rest seat and clasp should take place. So here l need one more clinical appointment, I will call the patient and make try in for the resin coping intraorally.

 3/4preparation show in picture (slide 32) buccal view,

We put the denture then we continue filling details by resin or wax to take place where rest and clasp will be.

Notice that we don’t use any monomer intraorally so there isn’t any reaction.

 The alignment with partial denture is completely touching. Then we return it into the die then we do investment like any other crown.

 Slide 37 Notice that it is the final shape of the crown here we have rest seat, I bar touching. If l do investment and this will be the final shape so the crown that we do here will be full metal (in the picture I bar is completely touching the resin)

We didn’t account for porcelain so here is very old design (not esthetic)

 Slide41 3/4 crown is the final shape.

Gold restorations are from the most beautiful thing that we can use, but we don’t use it nowadays because of esthetics reason and cost.

 \* slide 43+44 another example of indirect direct because it is the most commonly used.

 Same thing this tooth have Resin coping on the die, we transfers it intraorally, fill by resin or wax to make sure everything is fitting properly ,we have to flex the partial denture intaorally to make sure the clasp and major connector are properly touching, rest seats are properly seated then we continue steps as regular.

Here in the picture labialy touching the labial clasp which made from metal, also rest seat is made from metal and other things made from porcelain. we call it prosthetic crown or surveyed crown

Indirect –direct technique is the method we use it in our clinics in the future.

We still use partial denture because some patient can't afford for implants. Much less than before but at least we still use it for 10-20 years.

Now with technology CAD-CAM application we can use it in this situation.

Here the same but instead of lab works, dies, resin coping we have technology we can apply it to make things easier.

We do the same: preparation, make sure that l have enough clearance intraorally, we use bisacryl (integrity) that we use it to make temporary crowns and bridges). We make injection for the material to make indentation for the clasp and rest seat at the same time we get the margin. Before this done we should remove the rpd.

. In CAD-CAM we have digital image we scan our preparation. All other work done on computer; we determine the margin and the shape of the crown.

First step I do scanning for our preparation, I fill with integrity (bisacryl),We get indentation for rest seat and clasp assembly then l do scan for the pattern as it make impression for the margin

\*Anything we do on computer we do software which able to match it.

 In more details: Here on computer we have the scan of the preparation, another picture we have scan for the pattern that we do. Always we have to make orientation for thing we do on computer distal side, mesial, buccal, and lingual. Also on preparation we determine mesial, distal, buccal, lingual.software do matching from the trays of the margin of the pattern with the margin of preparation that we scanned. Then it will merge or overlaying them .at the end it will show us a picture of the pattern that we made by bisacryl on top of the preparation .now what I have to do is to refine and determine the undercut increasing or decreasing it and do our measurement by using measurement tool like gauges or ruler, then our design will be ready . we try our zirconia coping(like metal in PFM) making sure our margin fit in area where rest and clasp sit ,other part fill with porcelain with proper shade.so we need the area where the crown touch the metal of the rpd to made from zirconia and other part filled with porcelain .

 Somebody ask why we use zirconia in part where rest seat and clasp touch? Why not metal?

 Doctor answer that zirconia here is like metal and we prefer that rest and clasp will touch metal in case of PFM or zirconia in case of …, not porcelain because it is pitted.i don’t use E-max or empress because Zirconia is much more durable .