Problem / Question
Porcelain cleaves off the metal in the patient's mouth.

Cause (1)
The porcelain can not form a good bond with the metal.

Solution / Answer (1)
If there is dark metal oxide stuck to the porcelain, the problem is that the metal has developed too thick of an oxide layer, probably because of repeated baking. This problem is most common on 80% Pd alloys and on 50-60%Pd + 30-40%Ag alloys. Please consider switching to a better alloy for example, 50%Au + 30%Pd + 5%Ag.

Cause (2)
Occlusal force is not appropriate. If the opaque has strongly bonded to the metal, this is probably the cause.

Solution / Answer (2)
Double-check the articulation and carefully adjust the occlusion on the model and tell the dentist to carefully check the situation in the patient's mouth.

Cause (3)
The guilding agent is not bonding properly.

Solution / Answer (3)
Be sure to choose a guilding agent that does not lower bonding strength. If you are using gold bonding agent that contains porcelain particles be sure to wash bake with powder opaque, then apply the agent then overlay with powder opaque. Do not use paste opaque with these products.