

Figure 7 (facing page) – After de-shoeing a “stacked shoe” [1], designed to counter P3-Rotation, we discover a severe dropped sole and deformed P3 [2], massive lamellar wedge [3], and thinned out solar dome [4].

with the characteristic “lamellar wedge” (Figure 7, facing page), “dropped sole”, and exaggerated “growth rings” around the outer wall. Horses are typically put down at this stage of the pathology. Too, this is when P3 penetration is most likely to occur.

Putting P3 rotation/penetration in this non-weight bearing perspective, it is logical to ask: how the coffin bone, if it doesn't weigh anything to speak of, manages to pierce through the sole? I don't think it does, or at least in the way we are inclined to imagine it happening! Let me explain.

In the same way that the laminar attachments fail to connect the hoof wall to P3 (more accurately, to the Supercorium), the same is true of the sole-to-P3 attachment mechanism. Indeed, we invariably see a flat, sometimes convex, “dropped sole” – a sole that is losing its connection to the

horse. The sole, like the hoof wall, is separating from the horse. Its arched, concaved conformation, which once gave it strength and flexibility (– the sole epidermis is germinated in “sheets” of horn, not unlike automobile leaf-springs which provide support and cushioning to the vehicle) is now gone. The weight-bearing, soft-tissue mass surrounding P3, descends too, and with P3 firmly in its grip (which is still non-weight bearing and passively along for the ride). P3 may also now be tilted downward due to normal interphalangeal (joint) rotation, following the loss of connectivity to the hoof wall, which is growing and separating forward from the digit. It is in this position relative to the flat, weakened sole, that the latter may “split” along the bone's sharp, distal edge (Figure 8). This is particularly true if the Supercorium is “sloughing” the sole and its basal membrane is un-

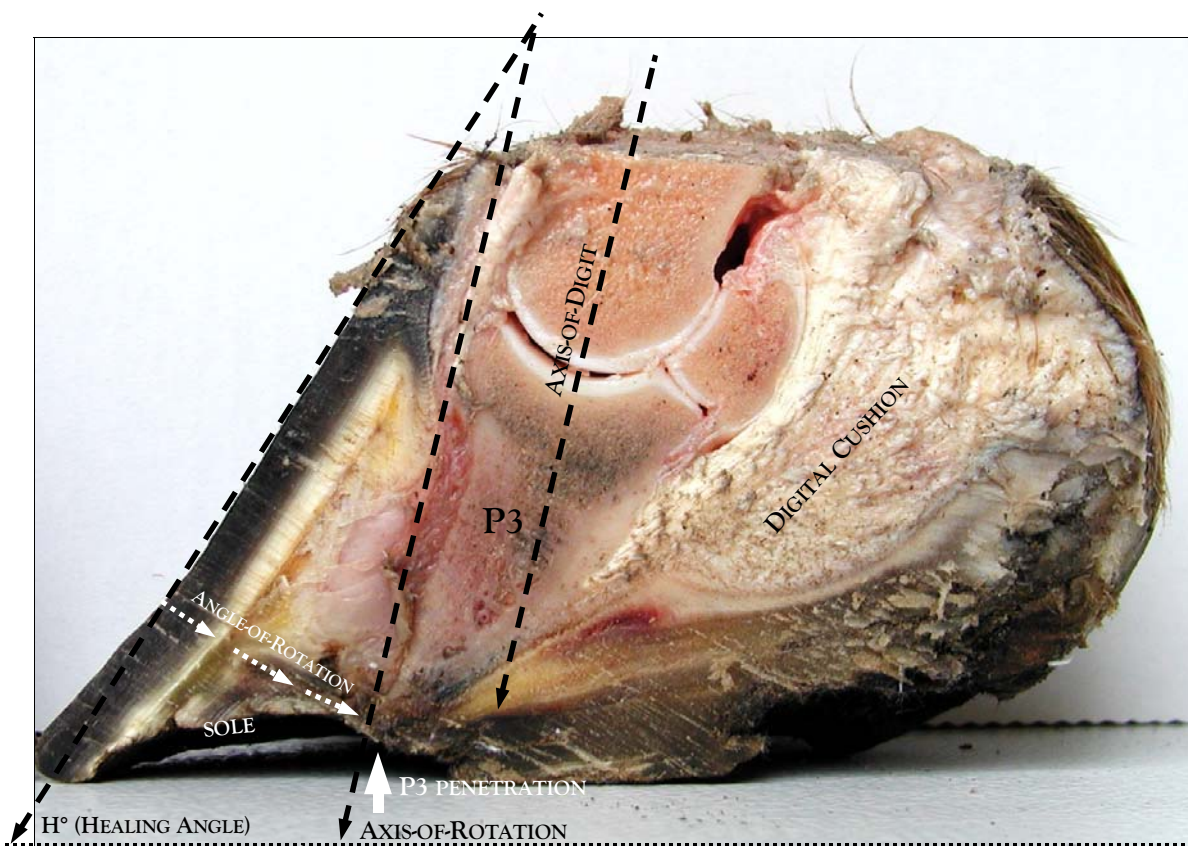


Figure 8 – P3-rotation and penetration