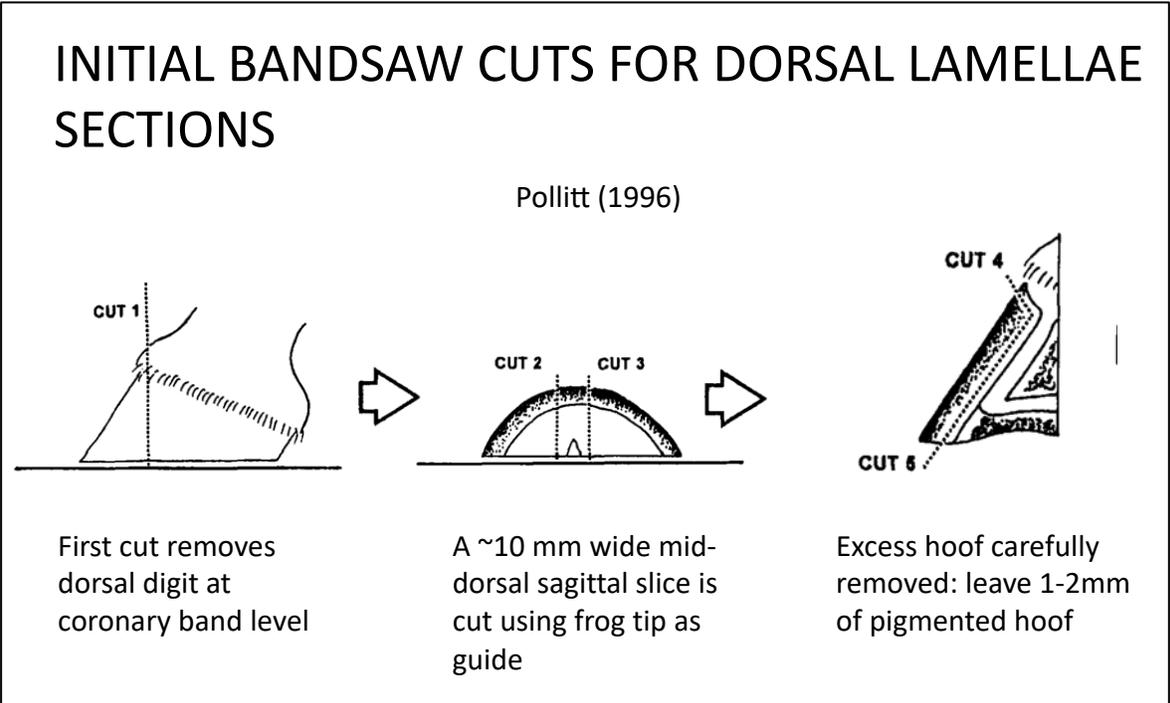


Dissection and preparation of equine hoof lamellae for histopathology

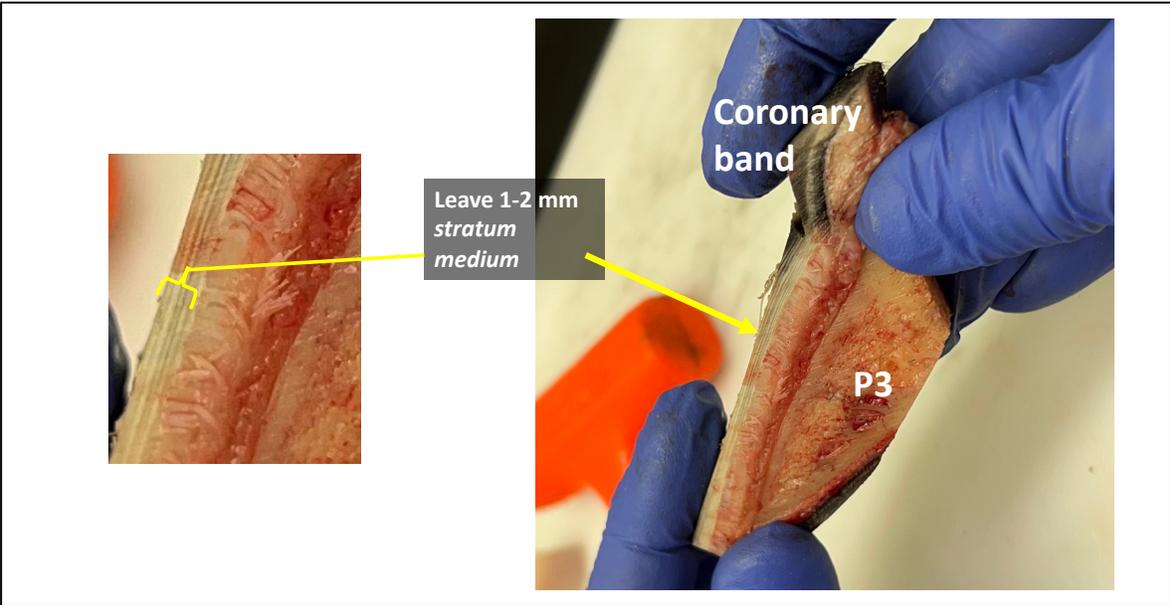
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1: CUTTING A SAGITTAL SLICE USING THE BANDSAW FOR DORSAL LAMELLAE HARVEST

- Removing digit at pastern level allows better control at the bandsaw.



Excess hoof wall is removed with the bandsaw (cut 5) to leave 1-2 mm *stratum medium* still attached.



2. DISSECTION AND TRIMMING OF LAMELLAE

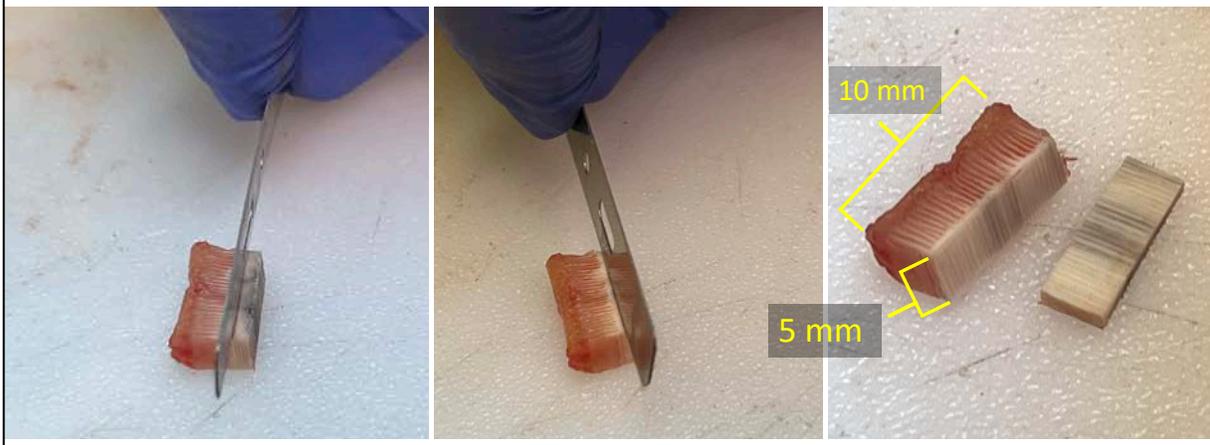
Carefully dissect the bone away with a scalpel, running the blade along the dorsal aspect of the bone, to retain as much sublamellar dermis as possible



Using a rigid box-cutter/utility knife blade and a mallet (to cut through the remaining *stratum medium*), the strip is cut along the short axis, removing ~ 5mm thick sections at the desired level from proximal to distal.



Using a microtome blade or scalpel, the stratum medium is trimmed down to leave approx. 0.5 mm remaining – careful not to over trim



3. FIXATION, PROCESSING & STAINING

- place the ~10mm wide x ~5 mm thick sections in cassettes and fix in 10% formalin for 24 hours then transfer to 70% ethanol
- paraffin embedded sections cut preferably with the microtome coming from the dermal side towards the remaining stratum medium to avoid tearing
- Routine staining is with H&E and/or PASH



Harvesting lamellae from the quarters:

Bandsaw cuts to harvest quarter lamellae



CUT 1 : remove the quarter (dorsal hoof will be missing if previously harvested)



CUTS 2&3 : take a ~10 mm wide longitudinal slice making 2 cuts parallel with the hoof tubules

Trimming and processing is then the same as for dorsal lamellae