

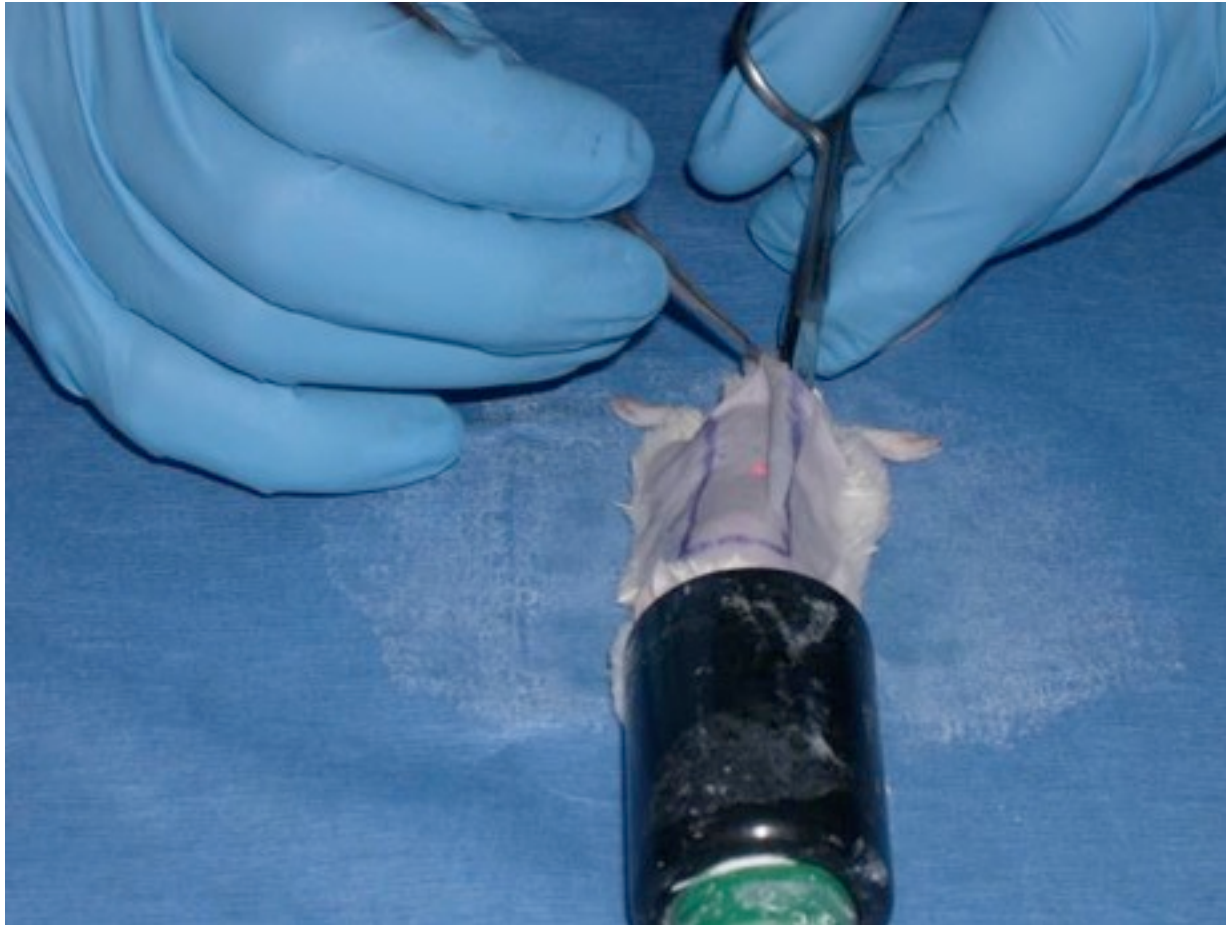
Mouse dorsal skin flap

Model of  
Flap Ischemia-Reperfusion

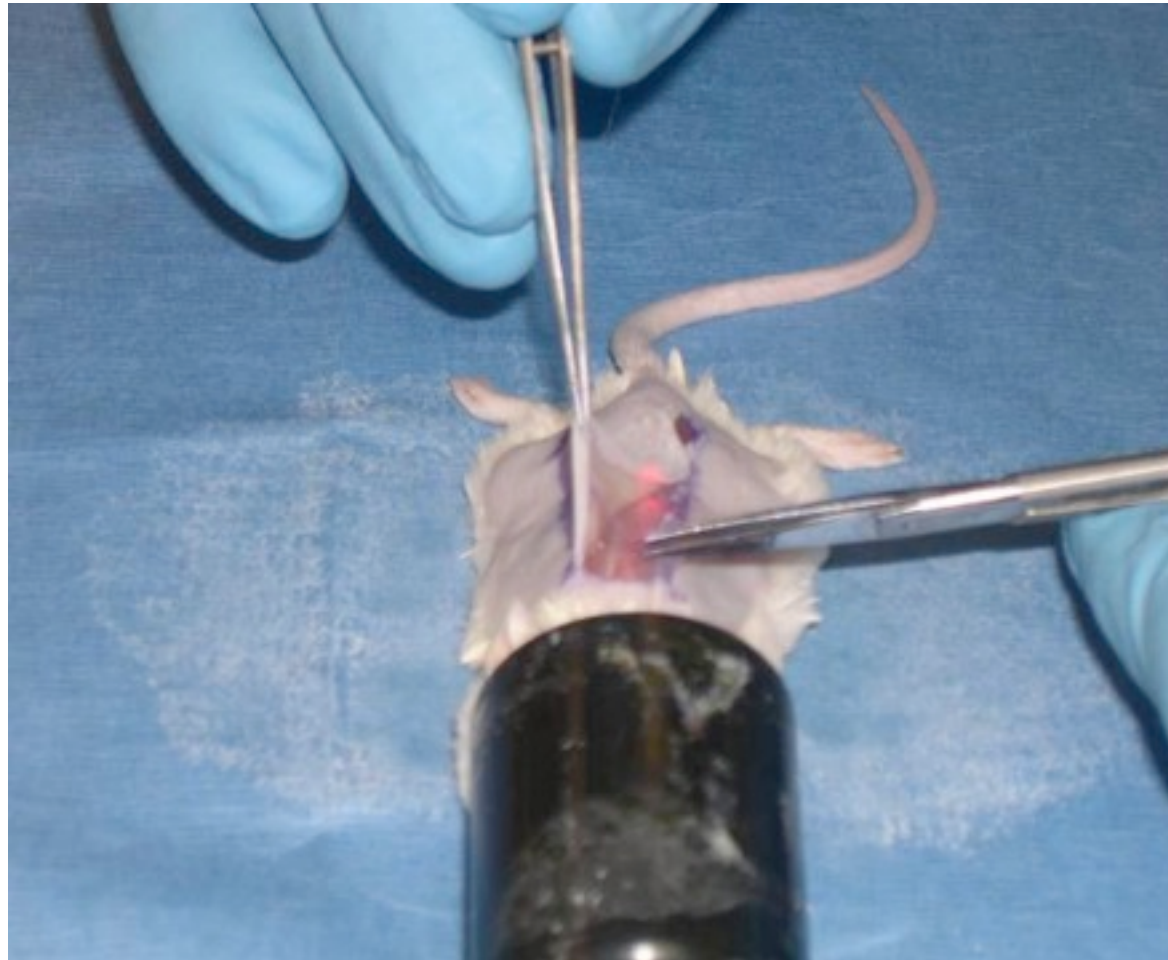
# Albino Mouse- Dorsal skin flap 1.5 cm X 4 cm



# Flap elevation



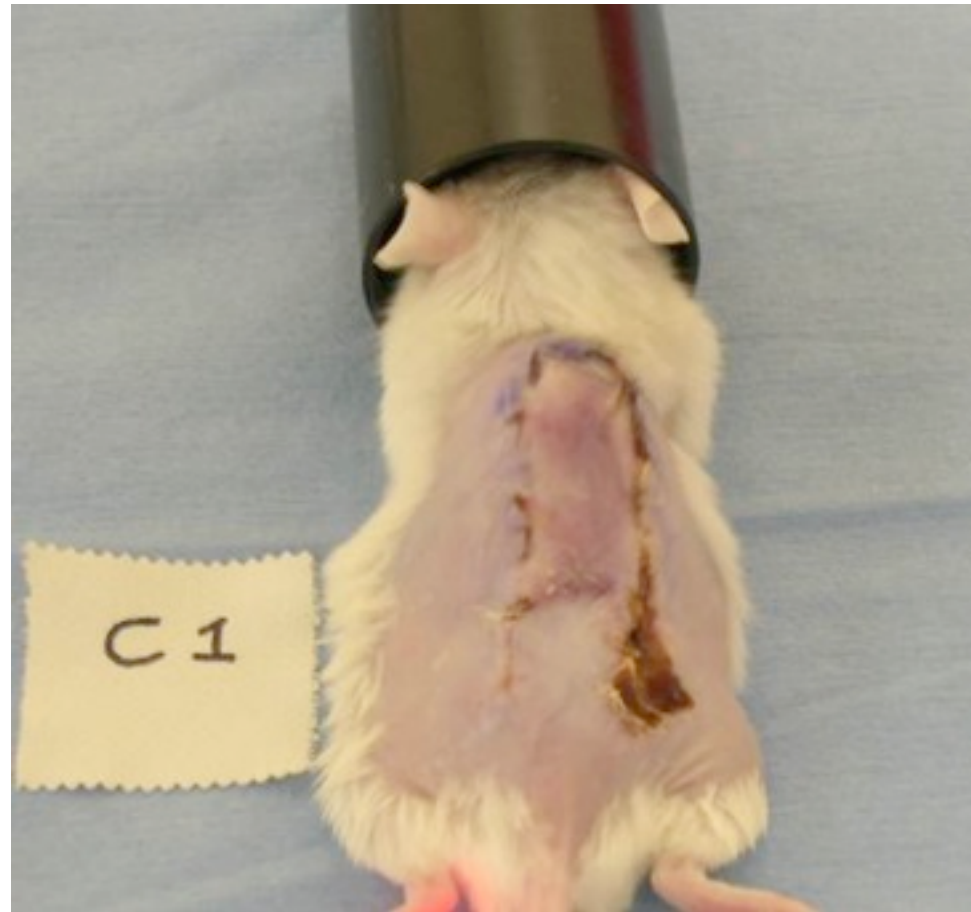
# Dissection



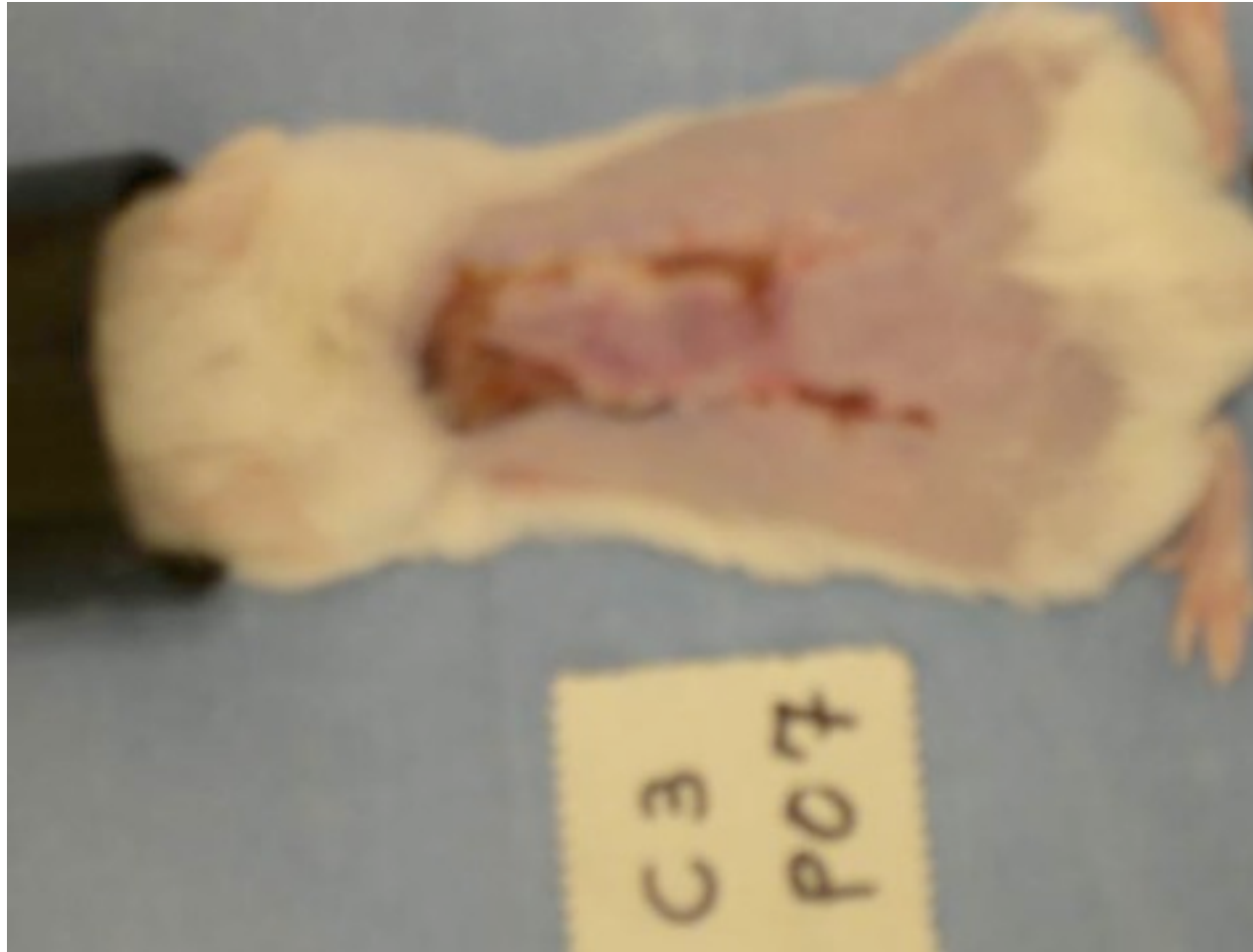
# Completed flap



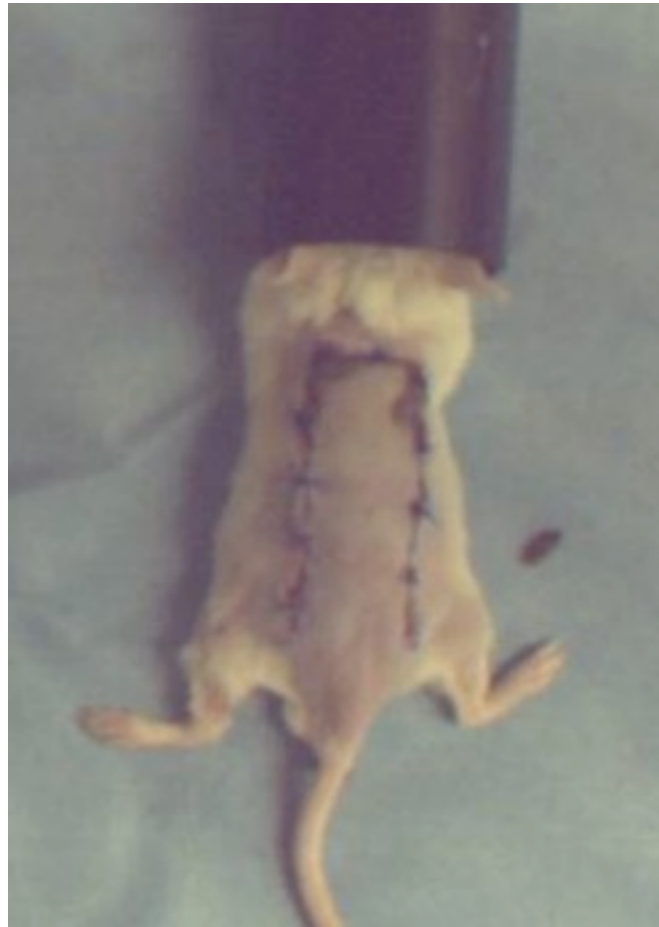
# Flap survival on day 7



# Flap survival on day 7



# LEL treatment- better survival



# LEL treatment- less



# Black mouse- same flap less necrosis



Flap loss- mean 30%, range  
25-35%



# Black mouse- on post-op 4, showing color changes and inflammation



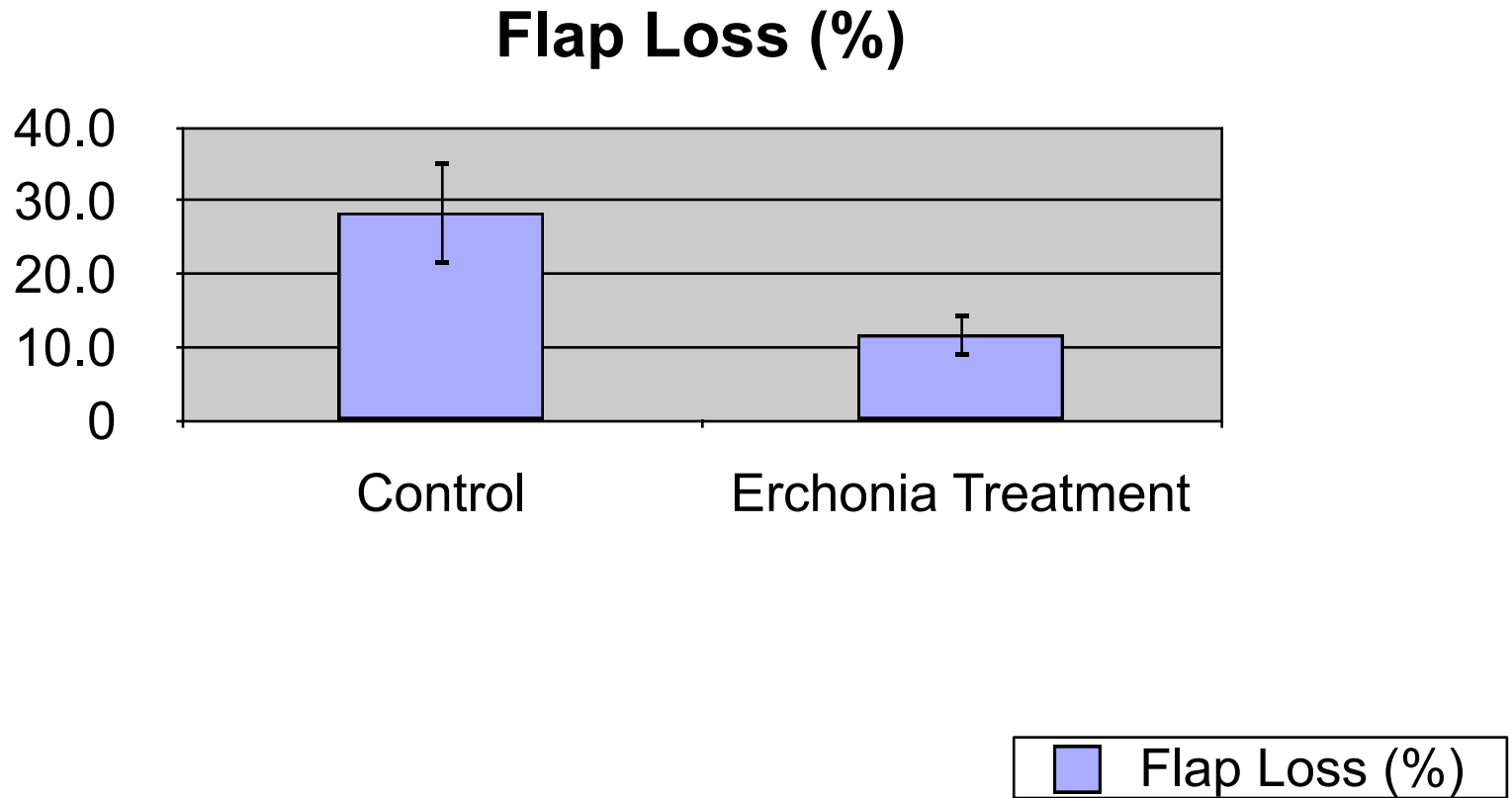
# Black mouse- LEL treatment



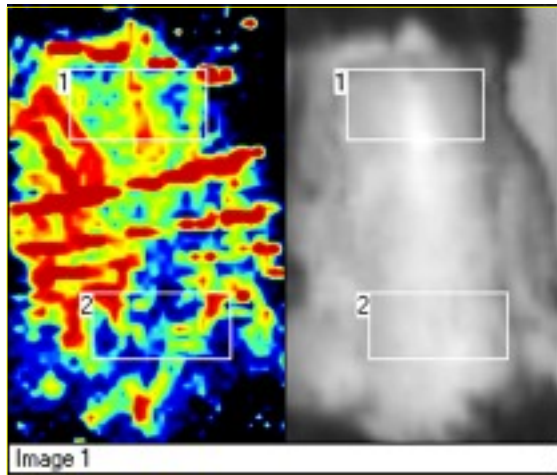
# Black mouse- LEL treatment



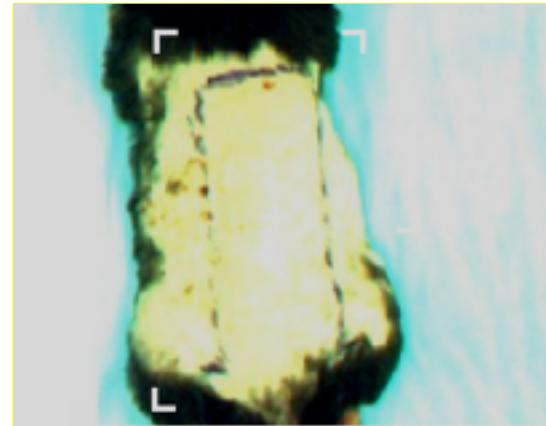
# Flap loss- Comparison



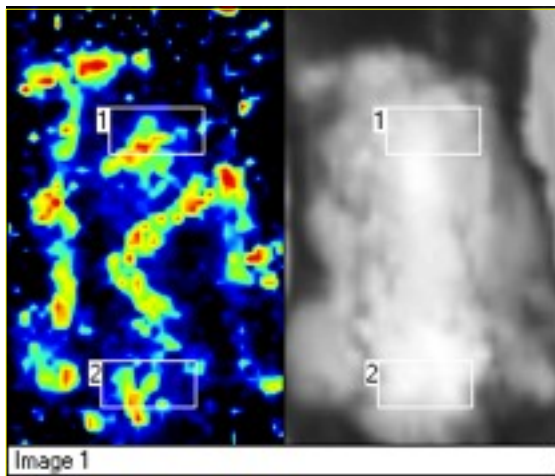
# Control animal Laser Doppler Imaging- Baseline



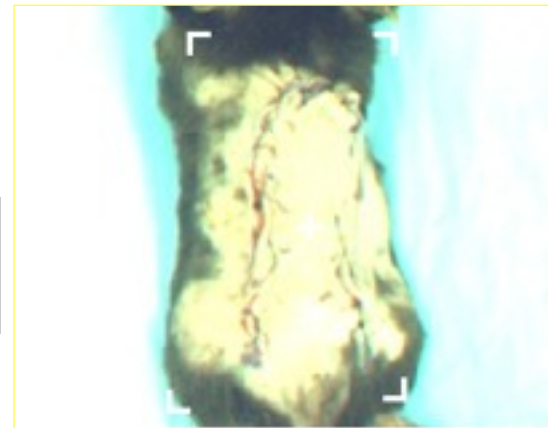
138.5
112.2



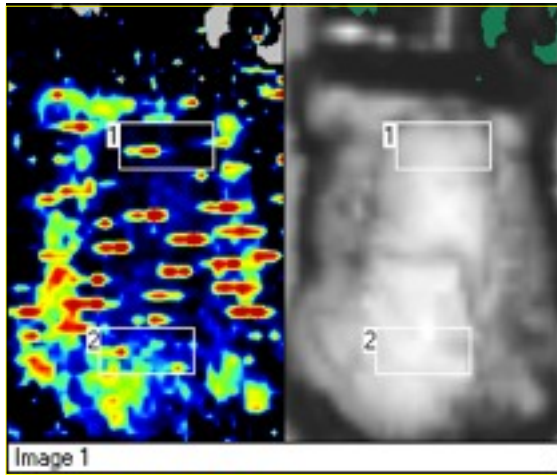
# Imm Post Op



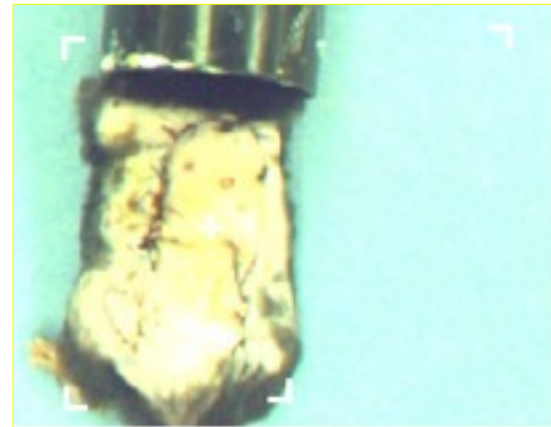
112.2
111.1



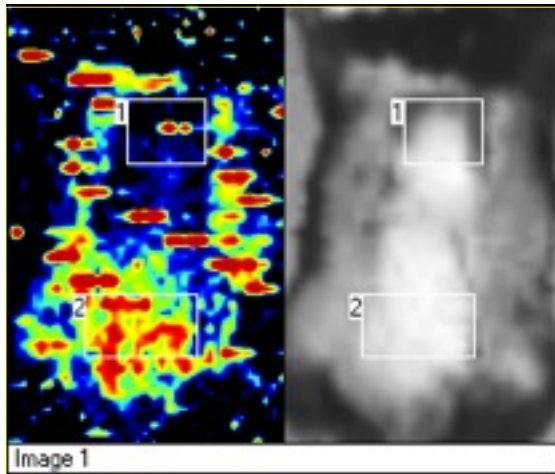
# Post Op 1



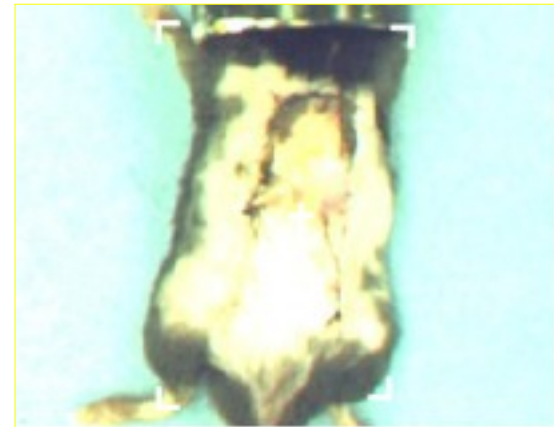
49.2
107.2



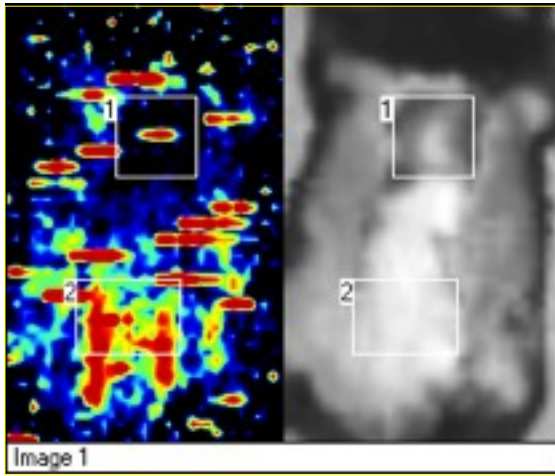
# Post Op 4



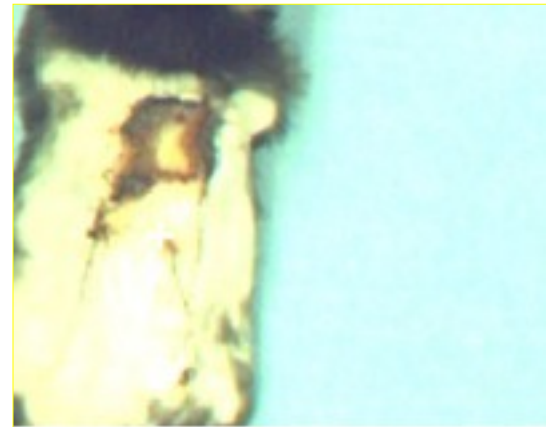
38.5
182.4



# Post Op 7

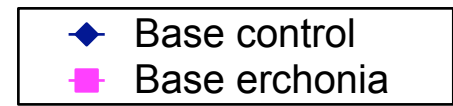
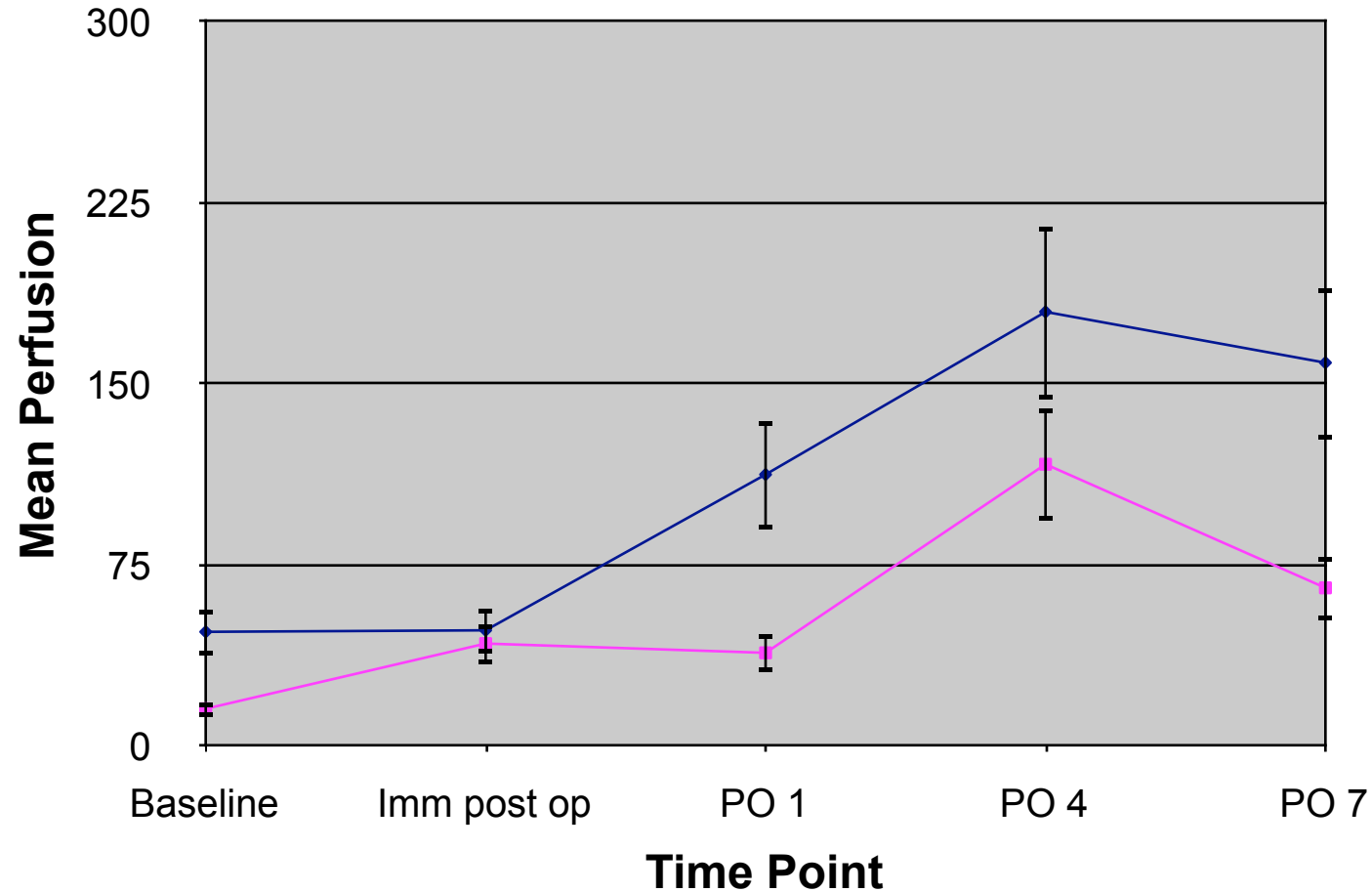


22.9
197.8



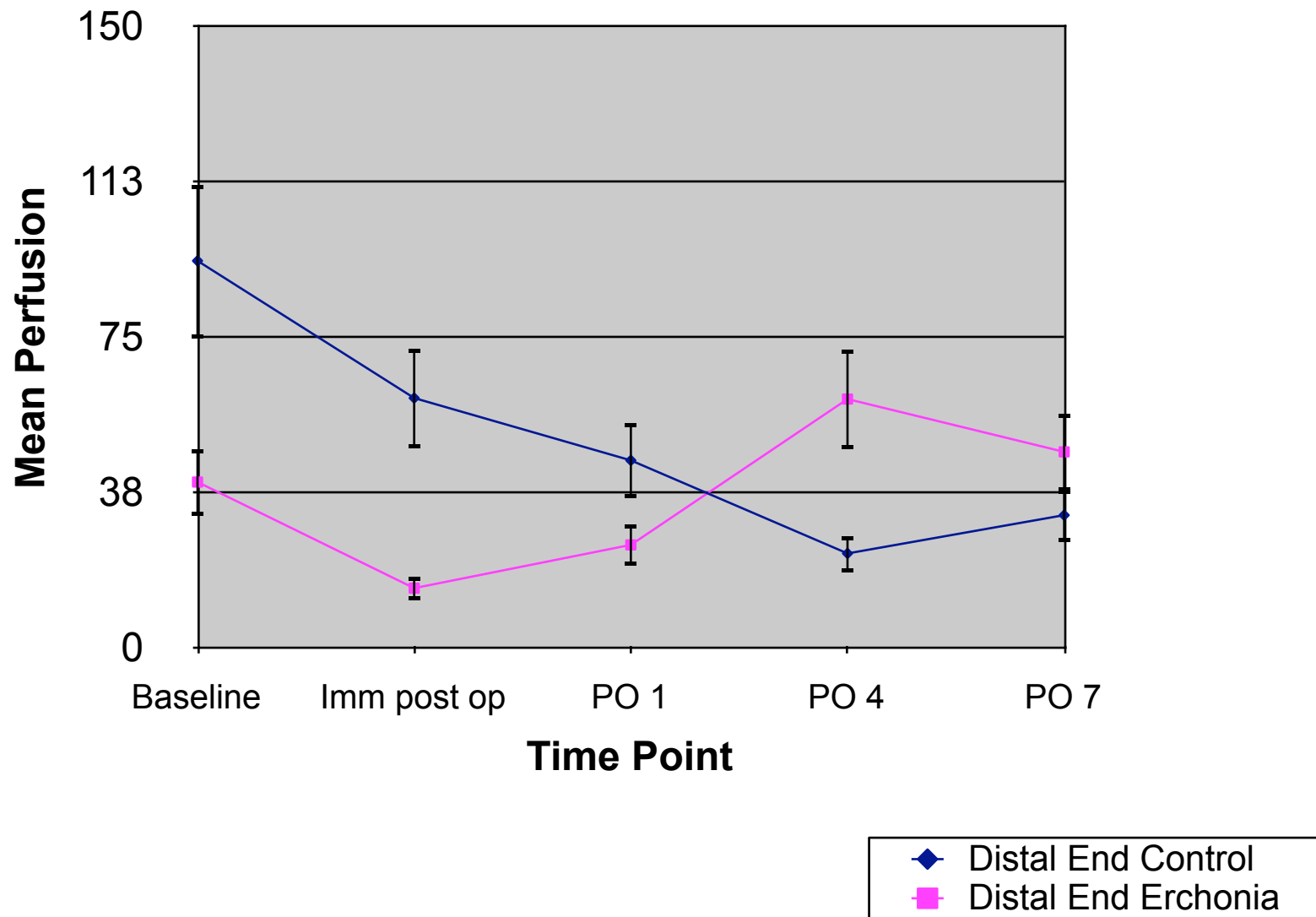
# Mean Perfusion Levels

## Vascular Perfusion at the Base of the Flap



# Mean Perfusion Levels

## Vascular Perfusion at the Distal End of the Flap



# Important Observations LEL treated group

- Significantly less flap loss
- Visibly reduced inflammatory response
- Significantly more perfusion at the distal end
- Less vasodilatory response at the base

# Things to be studied

- How LEL reduces inflammation
- How LEL treated flaps survived better with less vasodilatory response at base
- Why less vasodilatation
- LEL response is not perfusion mediated but metabolism based