

MP34-15: A dissection gesture classification and initial validation on robotic renal hilum preparation

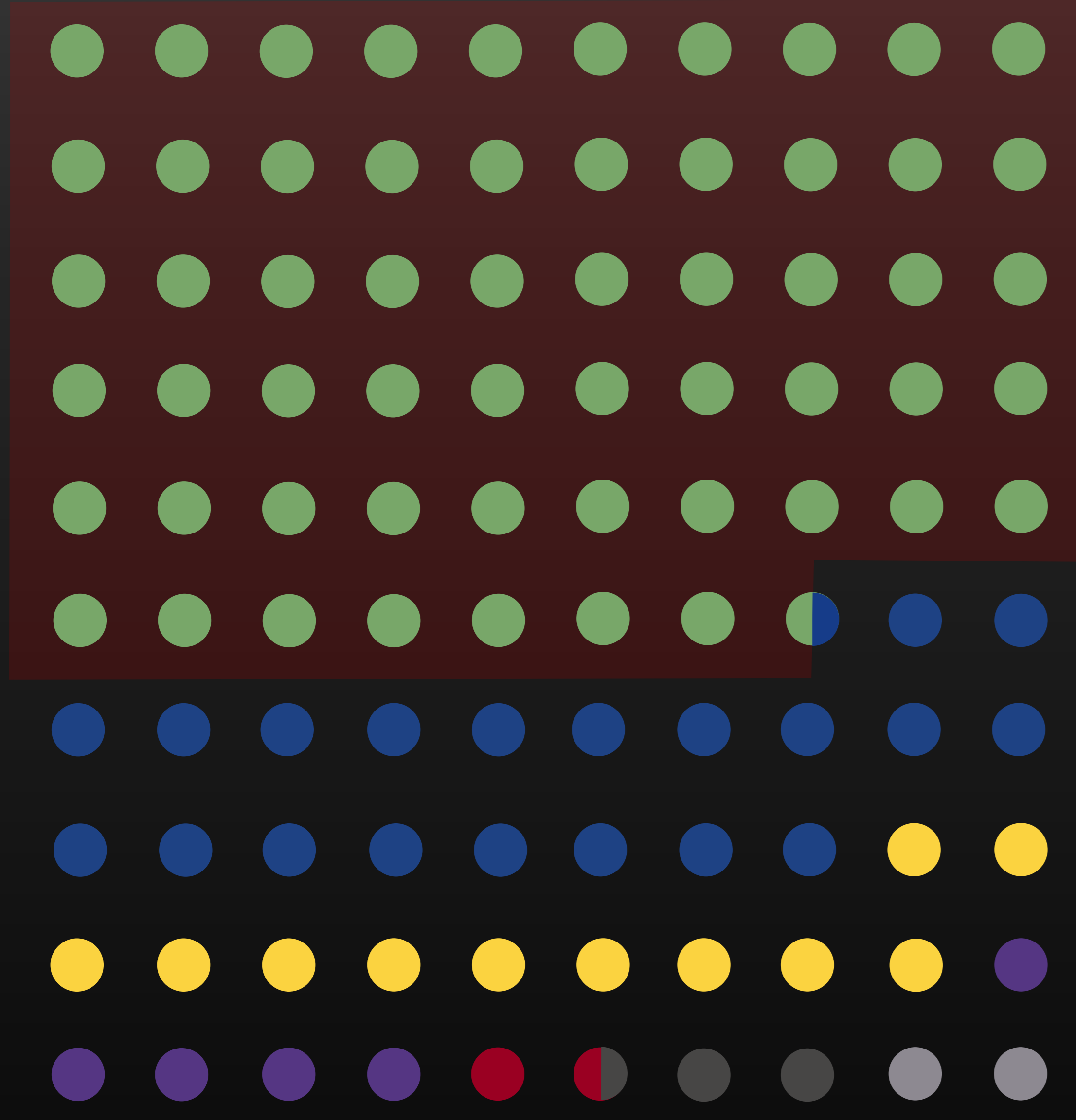
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Surgical Movements



- **Dissection 57%**
- Supporting 43%**
 - Retraction
 - Camera move
 - Assistant motion
 - Coagulation
 - Ineffective motion
 - Idle times

Dissection Gesture Classification

Single blunt dissection

Spread Peel/Push Hook

Single sharp dissection

Cold Cut Hot Cut Burn Dissect

Combination gestures

Pedicalize Two-hand Spread Coagulate then Cut

- Dissection pattern differences can be found between experts/novices.
 - Experts were more efficient, 5/9 dissection gestures, $p \leq 0.033$
 - In different anatomical zones, experts exhibited significantly different gesture choices, $p < 0.001$

