

# Micro-anatomy of the innervation of the PCA muscle

## Inferior laryngeal Nerve: variability of the terminal branches



I branch=7.3%

2 branches=42.7%

3 branches=34%

4 branches=10.7%

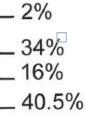
5 branches=4.7%

6 branches: 0.6%

#### Origins of the PCA branches

- A:vertical segment under CT joint
- b: vertical segment behind CT joint
- c: vertical segment above CT joint
  - d=genu, common origin with IA nerve branch

e=oblique segment, between the IA and LCA branches





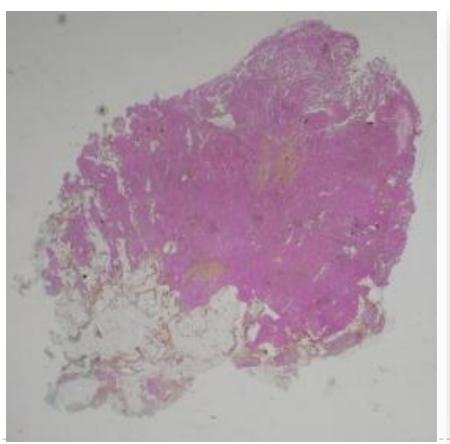


RN



## The line of the neuro-muscular joints

#### ▶ HES staining





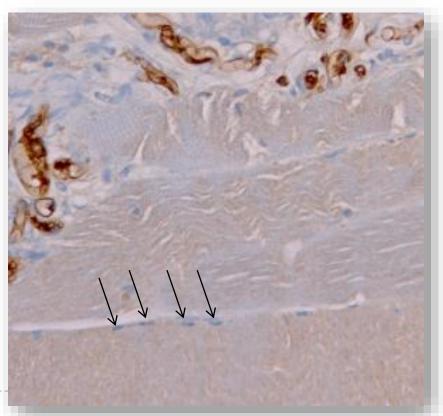
### Multi-innervated fibers



Neurofilaments staining

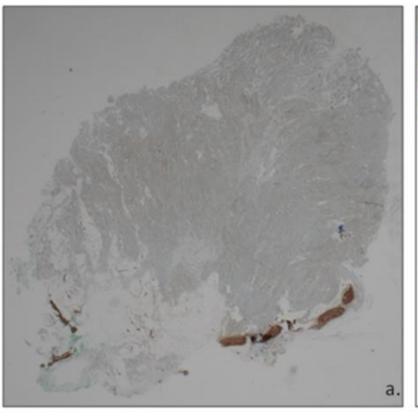
S100ß staining

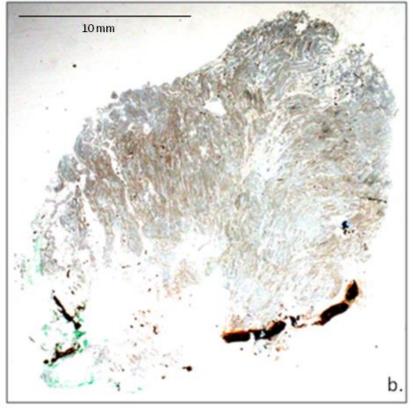




## The line of the neuro-muscular joints

#### ▶ Anti-S100ß staining







#### Conclusions



- Guide the technique for selective reinnervation
  - Existence of an « end-plates line» in the PCA

#### Multi-innervation

- Physiological interest
- Probably a factor of resistance to aging and neural degenerescence