Revisited Hyperselective Neurectomy in upper limb spasticity
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Spasticity: hyperexcitability of muscle
Criticism: recurrences
New guidelines for NHS in light of our encouraging results, review of literature and recent anatomical studies

Methods
1° - Pubmed search: «spasticity» and «neurotomy» / «hyponeurotisation» / «hyponeurotization» / «neurectomy»
Inclusion criteria: english and french literature, detailed description of the technique, application of the procedure at the upper limb
2° - Anatomical study of the motor branches of the main flexor, adductor and pronator muscles of the upper limb 56 cadaver dissections

Results
• 14 studies, 425 cases of neurotomies
Most performed technique: 5 to 10 mm resection in length, 50 to 80% of the motor fascicles
Results: improvement with decrease of spasticity, FU 26 months

BUT:
- 65 to 100% of the cases involved non functional hands
- In all cases: after failure of all other treatment
- Difficulties of evaluation: associated surgical procedures, lack of objective criteria for spasticity

• Cadaver studies: great variabilities of the anatomy of motor branches which could be missed with small incision, frequency of common origin which suggest neurectomy as distal as possible

Conclusion
→ Previous articles: effective in non functional hands after failures of other treatments
→ Technical improvement: hyperselective neurectomie at penetrance point of each motor branches into the target muscle: satisfactory and stable midterm results in functional cases (ongoing prospective study)