PROJECT

Tutor's Name	Prof. Carron Michele
Cotutor's Name	

1) Project title

Delayed Neurocognitive Recovery After Breast Surgery: Incidence and Relationship With Common Intraoperative Neuromonitoring Data and Concentration of Propofol Infused With Targeted Controlled Infusion (TCI) in Women With Laryngeal Mask Airway

2)Abstract (max 500 words)

Delayed Neurocognitive Recovery (DNR) is a decline in cognitive functions after general anaesthesia detected from emergence until 30 days in the post-operative period. DNR has an aestimated incidence of 12% in after general anaesthesia and common risk factors are: increasing age, poor education, history of cerebro-vascular disease, pre-existing cognitive impairment, post-operative infenctions and pulmunary complications.

Anaesthesia deep role is still debated, and in particular this pathological condition has not been yet investigated after general anaesthesia with Targeted-Controlled-Infusion (TCI) pumps and Laryngeal-Mask-Airway (LMA), daily used to anesthetize women undergoing breast surgery.

Aim of this observational trial is to define if decline in common neuropsychological tests (Montreal Cognitive Assessment, Trail Making Test A and B, Digit Span Test), delivered to the patient before and after surgery relates to intraoperative and awakening concentrations at effector's site (Ec) of propofol and remifentanil TCI and the values of Bispectral Index and Entropy monitoring and Surgical Plethysmographic Index (SPI).

General cognitive condition, visuo-spatial abilities and short-memory capacity will be particularly evlauated.

168 adult women will be recruited in the breast unit operating theatre of the Treviso regional Hospital to have a statistical significance.

Inclusion Criteria are: General Anaesthesia delivered with Propofol and Remifentanil with Targeted Controlled Infusion, and Use of Laryngeal Mask airway. Exclusion Criteria are: Neurological pathologies and Haemodynamical instability during surgery.

This project has been already approved by the local ethical commitee (Approval Number: 681/CE Marca) and registered in a public registry (clinicaltrials.gov ID: NCT03774420).