TITLE.

MYOMECTOMY BY PSEUDOCAPSULE SPARING: BIOLOGICAL AND CLINICAL IMPACT ON REPRODUCTION

AUTHOR/S.

Tinelli Andrea [1]

ABSTRACT.

Uterine fibroid is a monoclonal growth of fibrovascular cells that arise from the myometrium. Fibroids have an impact on female reproductive wellbeing. Fibroids are surrounded by a fibrovascular network, called myoma pseudocapsule, probably created by myometrium to cope with the development and growing of fibroid. The pseudocapsule is genetically similar to myometrium and differs from fibroid, so as the vascularization who, despite the benign nature of myomas, shows geometric characteristics of a malignant tumor. This fibrovascular structure is rich of neurotransmitters, as a neurovascular bundle. These neurotransmitters are strictly involved in muscular wound healing, and there are also a proper angiogenic propriety. New advancements in endoscopic surgery have been considered as the true alternative to laparotomy in fibroids removal with numerous advantages, such as short hospitalization, decreased need for postoperative analgesia and less intraoperative blood loss. Last evidences on the presence of dedicate angiogenesis, neurofibers and neuropeptides in pseudocapsule suggested to preserve as much as possible such structure during myomectomy. Pseudocapsule sparing during myomectomy preserve myometrium integrity peripheral to fibroid site, enhancing myometrial healing after myomectomy. Thus, intracapsular endoscopic myomectomy should favour reproductive outcomes and normal labor and delivery, for less bleeding, better neurovascular bundle sparing, and post-operative adhesions reduction. Finally, these clinical evidences were successfully applied also in myomectomy during cesarean section by pseudocapsule sparing.