

Editorial

Mini Invasive Video Assisted Techniques in Thyroid and Parathyroid Surgery

Paolo Del Rio*

University of Parma, Unit of General Surgery, Coordinator of Week Surgery, Italy

Over the last few years we have assisted to an evolution of treatment of thyroid and parathyroid endocrine disorders. The use in surgical practice from '90 years of endo-laparoscopic techniques has changed the approach to surgical diseases.

From 1996 [1] we know the potential use of laparoscopic optic in the treatment of thyroid disease. The first report of a clinical casistic is in 1999 from Pisa that described the use of minimally invasive videoassisted parathyroidectomy and thyroidectomy (MIVAP/T) [2,3]. The development of miniinvasive techniques applied to cervical endocrine diseases was related to an increasing use of cervical high resolution ultrasound and to a better preoperative diagnosis especially MIBI scintigraphy with an higher success rate of pathological parathyroid side, and related to the dosage of intraoperative PTH [4]. The preoperative diagnosis, the correct evaluation of thyroid volume permits to define the selection of patients in accord to inclusion criteria for MIVAP/T. The inclusion criteria have undergone a change in the last years; the initial experience of MIVAT was characterized by a volumetric inclusion criteria (volume < 20 ml, thyroidal nodule < 3 cm and low risk thyroid carcinoma) [3]. The more extensive use of videoassisted technique in Europe and North America has modified the inclusion criteria [5]. The indications have not been limited to low risk nodule but have been extended to intermediate risk differentiated thyroid cancer lower than 3 cm [6]. The incidence of adverse events in our experience and in literature is comparable to traditional thyroidectomy (TT) with a better cosmetic result, lower postoperative pain after 24 hours from procedure [7,8]. The costs are the same than traditional thyroidectomy; we use a laparoscopic column, an optic of 5 mm 30 degrees, and energy devices as TT. Other techniques are described as miniinvasive with extracervical approach: transaxillary endoscopic thyroidectomy, periareolar breast endoscopic thyroidectomy, transaxillary robotic thyroidectomy [9].

These procedures presents some critical points [10,11]:

- The costs of instruments
- The operative time is higher
- the incidence of adverse events reported is higher than TT and MIVAT as post-operative pain.

*Corresponding author

Paolo Del Rio MD, University of Parma, Unit of General Surgery, Coordinator of Week Surgery, E-mail: Paolo.delrio@unipr.it

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- Cosmetic outcome, characterized by the absence of cervical surgical scar, is associated to an axillary incision of few centimeters
- The incidence of new postoperative complications (subcutaneous chest infection, neurological brachial lesions, chest paresthesia).
- The difficulty to perform a total thyroidectomy by a unilateral axillary access.

The minimally invasive videoassisted techniques have more advantages for patients respect extracervical surgical approach especially for western people. The indications to extracervical approach for Asian people are different and related to Body Mass Index, diameter of nodule, mean thyroid's volume.

I want to remember how the concept of miniinvasive surgery is not related only to the length of the surgical incision, but to the extent of anatomical dissection that the surgeon performs. In my experience the MIVAP/T is safe, standardized, permits a correct bilateral neck exploration when the parathyroid glands are not localized, permits to treat all the surgical thyroidal diseases in accord to inclusion criteria.

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