## Review of: "Risks and prediction of postoperative hypoparathyroidism due to thyroid surgery"

## Francesco Tartaglia<sup>1</sup>

1 Sapienza University of Rome

Potential competing interests: The author(s) declared that no potential competing interests exist.

Authors report their experience about 352 patients who underwent bilateral total thyroidectomy alone or with central lymph node dissection and/or lateral neck dissection between June 1, 2019, and November 30, 2019. The aim of the study was to investigate the prevalence of postoperative hypoparathyroidism, the relevant factors, and predictors of transient or permanent hypoparathyroidism.

The study is well conducted and from a statistical point of view the correct survey methods were used. In spite of this, nothing new is revealed compared to what has already been reported for years in the international literature.

However, it is surprising that patients with central lymphectomy and/or laterocervical lymphectomy have the same percentage of hypoparathyroidism as those who underwent only total thyroidectomy. Central lymphectomy, if performed under the artis rule, that is, removing all the cellular between the common carotid artery laterally, the trachea medially and up to the iode bone above and the anonymous trunks below, involves the inevitable sacrifice of the two lower parathyroid glands, which hesitates almost always at least in a transient hypoparathyroidism. If a laterocervical lymphectomy is also associated, especially if bilateral, the percentages of definitive hypoparathyroidism are significantly higher. Clearly, in the case of central and/or laterocervical lymphectomy, the two inferior parathyroid glands removed in principle can be reimplanted and this greatly reduces the percentage of definitive hypoparathyroidism but not that of transient hypoparathyroidism. Furthermore, the authors place in a single group the patients with lymphectomy (central and/or laterocervical) associated with total thyroidectomy while it would have been appropriate to differentiate these two categories.

Twelve surgical wound infections are recorded (3.4% of the total) which, despite being a small number in absolute, is far higher than that detected in my experience (no more than 5 cases out of more than 3000 total thyroidectomies) and if we add the 30 patients with wound hematoma or seroma we arrive at 42 patients (11.9% of the total) who had wound complications. With these numbers, in my opinion, I believe that a revision of the surgical wound management modalities is necessary.