



Complications after total thyroidectomy - the effect of neuromonitoring

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SUMMARY

Neuromonitoring was introduced in our department in March 2020. Due to that there was a study needed to evaluate the impact of neuromonitoring on postoperative complications in thyroid surgery – especially recurrent nerve palsy a postoperative level of calcium

AIM OF THE WORK

Retrospective study at our department to compare and analyze complications of thyroid surgery without and with neuromonitoring:

- Identification of recurrent nerve;
- Occurrence of recurrent nerve palsy;
- An average calcium level postoperative;
- The need of calcium substitution

MATERIALS AND METHODS

In total 177 thyroidectomies were performed at our department from the beginning of 2019 till the end of 2021

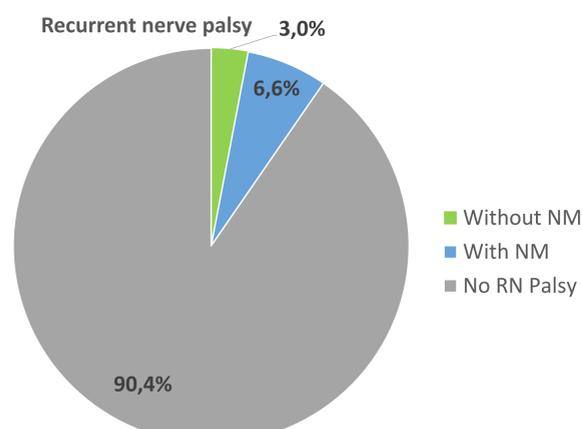
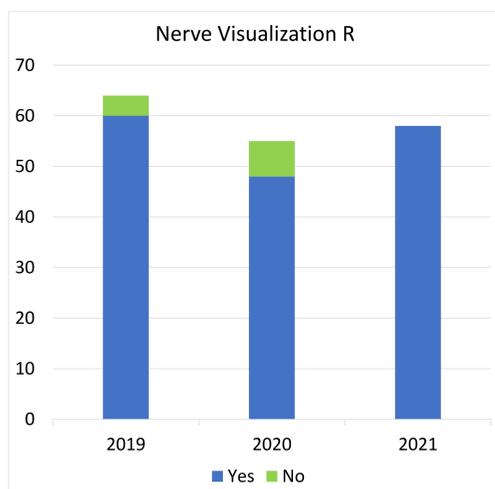
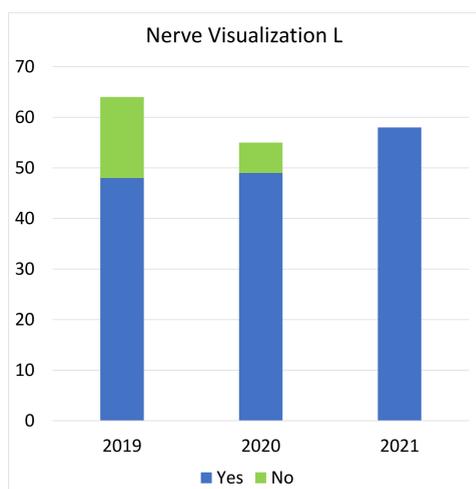
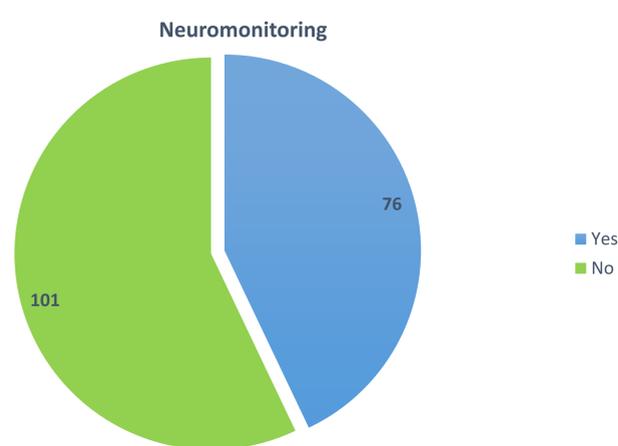
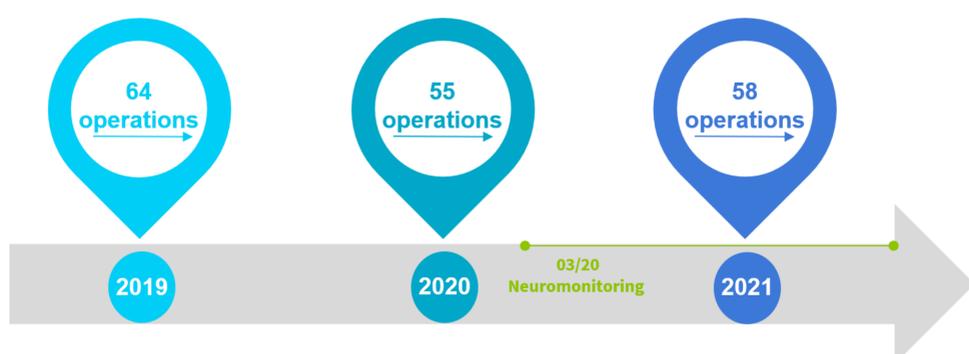
The amount of operations performed without and with neuromonitoring were 101 and 76 respectively.

Based on operative protocol and laboratory data we focused on perioperative identification of the recurrent nerve postoperative vocal fold paresis and calcemia

The need for postoperative treatment of hypocalcemia was evaluated as well

RESULTS

- Recurrent nerve was identified in 96% without and in 100% with neuromonitoring.
- Recurrent nerve palsy occurred in 4,5% cases in total -> 3,0% cases without neuromonitoring and in 6,6% cases when neuromonitoring was used. There was only 1 case of permanent nerve palsy.
- The average calcium level was 2,06mmo/l in both groups.
- The need to substitute calcium i.v. or active form of vitamin D was in 77% cases without and in 72% cases using neuromonitoring.



CONCLUSION

Based on a retrospective analysis, it can be concluded that with the start of using neuromonitoring the percentage of recurrent nerve palsy increased and postoperative calcium level was the same in both groups, need for substitution calcium was decreased a bit when neuromonitoring was used.