S-2512

The role of indocyanine green (ICG) in the delineation of the parathyroid gland in thyroid surgery

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ABSTRACT

Objective: Hypoparathyroidism is one of the most common complications after thyroid surgery. The most common causes of hypoparathyroidism are surgical trauma to the parathyroid glands, removal of the parathyroid glands together with the thyroid or devascularization of the parathyroid glands. In this study, it was aimed to prevent hypoparathyroidism that may develop after thyroidectomy by performing intraoperative angiography of the parathyroid glands with indocyanine green (ICG) in patients who underwent total thyroidectomy for various reasons and protecting the parathyroid glands without damaging them.

Material and Methods: Patients undergoing total thyroidectomy underwent intraoperative imaging of the parathyroid glands with a non-radioactive infrared device (SPY) using intravenous ICG.

Results: Intraoperative parathyroid angiography with ICG was performed in 40 patients who underwent total thyroidectomy. Thirty-three of the patients had at least one well vascularized parathyroid gland. Parathormone levels on postoperative day one and day seven were within normal ranges in all 33 patients. Only one patients had asymptomatic hypocalcemia. Mean postoperative day one parathormone level was 38.7 ng/L and postoperative day seven parathormone level was 42.3 ng/L. Mean calcium level was 8.8 mg/dL on postoperative day one and 8.9 mg/dL on postoperative day seven. Transient hypoparathyroidism occurred in three of seven patients who were not well vascularized by parathyroid angiography, but symptomatic hypocalcemia did not occur. No permanent hypoparathyroidism occurred in any patient.

Conclusion: Patients with normal parathormone levels one day postop and at least one parathyroid gland visualized by intraoperative indocyanine green angiography did not require postop hypoparathyroidism treatment. Indocyanine green angiography can be used as a method to prevent postop hypoparathyroidism in patients undergoing thyroidectomy.

Keywords: Parathyroidism, indocyanine green, hypoparathyroidism

S-2695

Development and evaluation of modular training program on basic subjects in general surgery residency training

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ABSTRACT

Objective: Medical residency training is an organized program offered to residents under guidance and supervision. The development of lifelong learning skills, maintenance of competence and gaining professionalism in residents are within the scope of the specialty training process. Therefore, training programs should be organized in a way to ensure that a specialist gains the knowledge, skills, and attitudes he/she needs while practicing his/her profession. In this study, it was aimed to evaluate the residents before and after the training module.

Material and Methods: Ten commonly accepted topics in the field of general surgery of the curriculum formation and standard setting system of the medical specialization board were selected. These topics include 1) Asepsis, washing and dressing 2) Basic surgical instruments 3) Surgical knot techniques 4) Simple sewing techniques 5) Urinary catheter insertion 6) Excisional biopsy 7)Laparotomy and closure 8) Nasogastric catheter placement 9) Abdominal examination 10) Basic laparoscopy skills. Audio-visual modules for these ten topics were prepared and uploaded to the computers in the

general surgery department and 25 residents in the department of general surgery were given access to these modules for 60 days. At least two months after the distribution of the modules, the extent to which the objectives were achieved was evaluated by a single faculty member by looking at the bedside, operating room, rounds and daily practice activities of the residents.

Results: The maximum score that each research assistant can collect if he/she is able to complete the stages defined by all modules is 380 points. Pre-test and post-test averages are presented according to seniority (Table 1). Non-parametric Mann-Whitney U test was used to test the significance of the difference between the pre-test and post-test averages of first-year and fifth-year residents. The difference between the pre-test and post-test means of junior and senior residents was found to be statistically significant ($p< 0.05$) (Table 2). The pre-test and post-test means were significant in all topics.

Conclusion: Utilizing developing technology and new learning models in the planning of surgical education can provide faster achievement of learning goals and can be a very effective option for distance education when there is an unexpected pandemic-like situation that affects the whole world and requires suspension of education, which was not yet the case at the time this study was planned.

Keywords: Education, module, medical specialty

Table 1. Pre- and post- test results vs. seniority

Seniority (years)	Pre-Test	Final Test
1	174.80	282.20
2	245.80	346.40
3	254.50	329.75
4	277.71	360.86
5	305.00	366.00
General	251.40	338.08

Table 2. First and fifth year resident's pre- and post- test results

	First Year (n= 5)	Fifth Year (n= 4)	p
Pre-test	174.80	305.00	0.014
Final test	282.20	366.00	0.014

S-2746

Use of myeloid-derived suppressor cell level in the evaluation of breast cancer progression and aggressiveness in clinical practice

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ABSTRACT

Objective: Breast cancer is the most common cancer among women worldwide, with over one million women diagnosed with breast cancer each year. With the widespread use of screening programs, the number of patients diagnosed with breast cancer has increased. Although disease-specific mortality decreases with early diagnosis, breast cancer-specific five-year survival is between 88-96% even in early-stage patients. Breast cancer patients are followed closely with radiological examinations after treatment. In this study, it was aimed to contribute to the improvement of diagnosis and follow-up processes with tumor immunology in breast cancer, whose incidence is increasing, and mortality remains important.

Material and Methods: Peripheral blood myeloid derived suppressor cell (MDSC) levels of 55 newly diagnosed breast cancer patients and post-treatment MDSC levels of 13 patients one year after initial diagnosis were analyzed at Gülhane Training and Research Hospital. In order to obtain low-density myeloid subpopulations, Ficoll 1077 density gradient separation was performed and those with high-density myeloid subtypes were collected from cells and erythrocytes below the Ficoll 1077 fraction. The collected cells were separated by fluorescence activated cell sorting method and MDSC subgroup analysis was performed.

Results: MDSC subtypes were compared within breast cancer subtypes and although PMN-MDSC levels were higher in triple negative breast cancer patients, this difference was not statistically significant. When the MDSC levels at the time of diagnosis and in the first year of treatment were analyzed

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