Poster No.
PE 074

International Surgical Week
The World's Congress of Surgery
isw2024.org
Kuala Lumpur, Malaysia
25-29 August 2024

Comparative Analysis of Nurse Practitioner-Assisted vs. Physician-Assisted Perioperative Outcomes in Thyroidectomy and Parathyroidectomy at a Leading Japanese Endocrinology Department

Rie Nobe[1], Yumi Tomiie[2], Kimio Ogawa[2], Yusuke Koshima[2], Keito Yokoi[2], Tsuneo Imai[2], Yatsuka Hibi[2]
[1]Department of Nurse Practitioner, Fujita Health University Hospital
[2]Department of Endocrine Surgery, Fujita Health University School of Medicine

Introduction: A nurse practitioner is a nurse who has received advanced clinical education and training and shares many of the same duties as doctors. In Japan, however, the scope of treatment that a nurse practitioner can provide is unclear because of the absence of national certification and legal recognition, unlike in countries such as the United States. Nurse practitioners in Japan must establish their role by demonstrating equivalent outcomes to medical doctors in various procedures. We evaluated the perioperative outcomes of thyroidectomy and parathyroidectomy procedures in which a nurse practitioner assisted at our institution.

Materials and Methods: In total, 89 thyroidectomies and parathyroidectomies were performed in our endocrinology department between 1 September and 31 December 2023. These procedures were classified into two groups: Group A, in which no nurse practitioners participated as surgical assistants (63 cases), and Group B, in which the author participated as a nurse practitioner (26 cases). Perioperative data from both groups were retrospectively analyzed using t-tests and chi-square tests.

Results: There were no significant differences in patient demographics, including age (Fig. 1), sex (Table 1), body mass index (Fig. 2), American Society of Anesthesiologists physical status classification (Table 2), organs, or operative method (Table 3) between the groups. There were no significant differences between Groups A and B in the operating time (152.8±64.9 vs. 176.9±93.1 min, p=0.235) (Fig. 3), intraoperative blood loss (45.6±49.8 vs. 104.2±198.6 mL, p=0.150) (Fig. 4), or length of hospital stay (7.68±4.76 vs. 6.96±1.45 days, p=0.281) (Fig. 5). Regarding postoperative complications, three patients required reoperation for postoperative bleeding (Group A, n=2; Group B, n=1) (Table 4).

Conclusion: Japanese nurse practitioners are able to contribute to thyroidectomies and parathyroidectomies as surgical assistants with the same skill level as medical doctors.

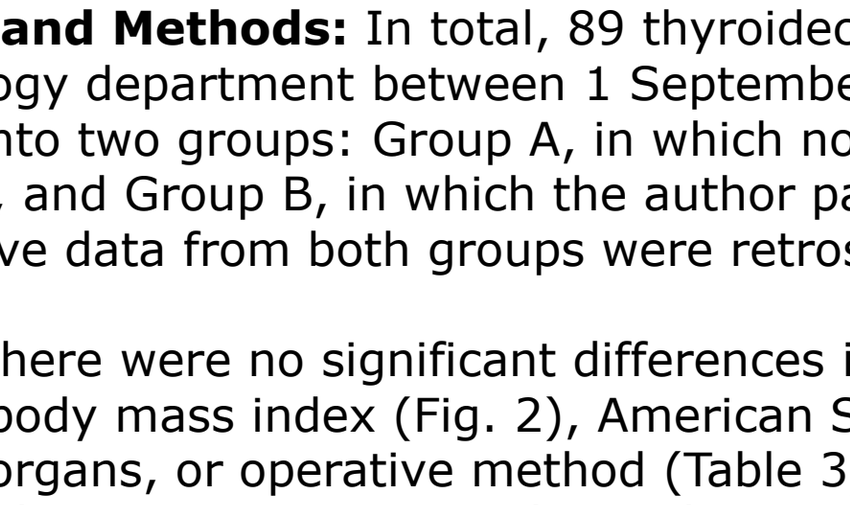

Figure 1. Age

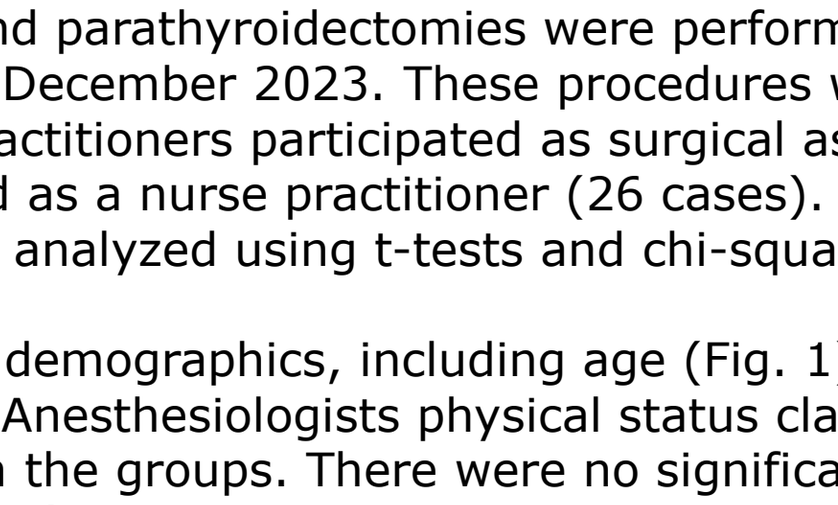

Figure 2. Body mass index

Table 1. Sex

	Male	Female	Total
Group A	17	46	63
Group B	8	18	26
Total	25	64	89

p=0.71

Table 2. American Society of Anesthesiologists physical status classification

	I	II	III	IV	V	VI	Total
Group A	23	36	4	0	0	0	63
Group B	23	12	4	0	0	0	26
Total	23	48	8	0	0	0	89

p=0.34

Table 3. Operative method

	Total thyroidectomy	Total thyroidectomy and lymph node dissection	Hemithyroidectomy	Hemithyroidectomy and lymph node dissection	Parathyroidectomy	Others	Total
Group A	12	8	22	6	9	6	63
Group B	7	3	8	2	4	2	26
Total	19	11	30	8	13	8	89

p=0.97

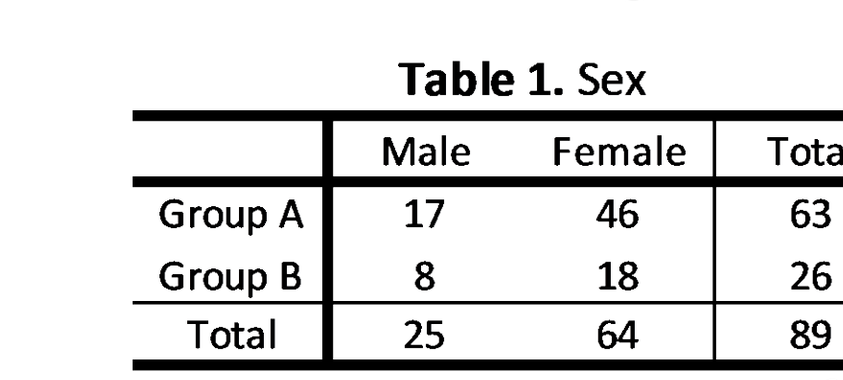

Figure 3. Operating time

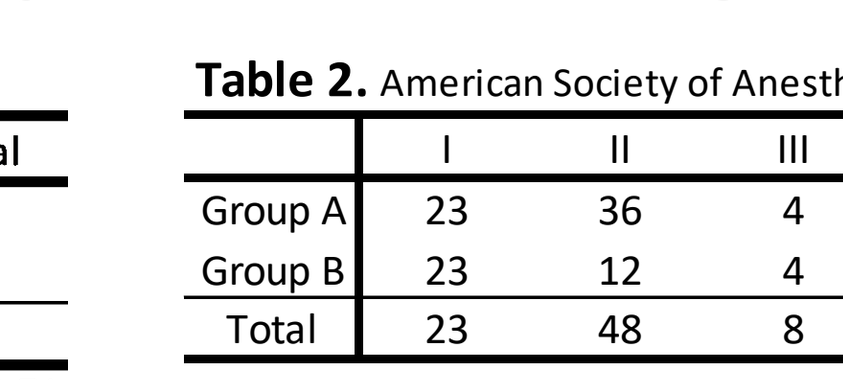

Figure 4. Intraoperative blood loss

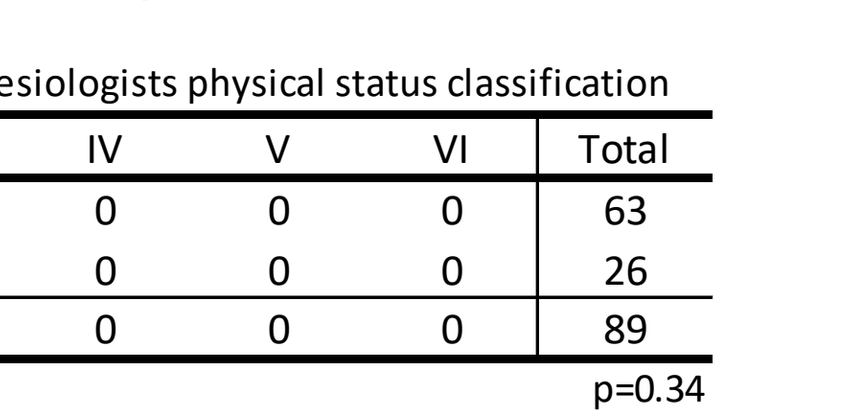

Figure 5. Length of hospital stay

Table 4. Postoperative complications

	Postoperative bleeding	Nothing	Total
Group A	2	61	63
Group B	1	25	26
Total	3	86	89

p=0.87