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EVALUATING THE KINETICS OF SODIUM-IODIDE SYMPORTER UPREGULATION IN RE-DIFFERENTIATION THERAPY CLINICAL TRIAL FOR ADVANCED THYROID CANCER

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Samantha Yang Peiling,[1,2] Kelvin Siu Hoong Loke,[3] Wan Qin Chong,[2,4] David, Chee Eng Ng,[3] Li Ren Kong,[5] Boon Cher Goh[2,4,5]

[1]*Endocrinology Division, Department of Medicine, National University Hospital, Singapore*
[2]*Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore*
[3]*Department of Nuclear Medicine, Singapore General Hospital, Singapore*
[4]*Department of Medical Oncology, National University Hospital, Singapore*
[5]*Cancer Science Institute of Singapore (CSI), Singapore*

OBJECTIVES
MAPK hyperactivation, such as via BRAFV600E mutation, is commonly detected in radioactive iodine (RAI)-refractory thyroid cancers with suppression of sodium-iodide symporter (NIS). We hypothesize that short treatment course with MAPK blockade could suffice in upregulating NIS, while sustained 4-6 weeks treatment in current regimens could predispose to resistance.

METHODOLOGY
We conducted a phase II trial using BRAF and MEK inhibitors, dabrafenib and trametinib (DT) to examine the kinetics of NIS upregulation in RAI-refractory thyroid cancer with MAPK signaling pathway mutation. Iodide uptake was assessed using I-124 PET-CT scan at baseline, after 1-2 weeks and 4 weeks of DT. If there was adequate iodide retention, RAI was administered.

The primary outcome was the proportion of patients attaining tumour lesional dosimetry of ≥20 Gy with I-131 dose of ≤300 mCi. Secondary outcomes included safety, response rate, progression-free survival, and thyroglobulin response.

This research has been approved by an ethics committee.

RESULTS
Seven patients with activating BRAF and RAS mutations were recruited. Five out of 7 patients (71%) attained iodine uptake: 2 after 1-2 weeks, 3 after 4 weeks of DT. Adverse event (AE) was seen in 6 out of 7 patients (86%). Most had grade 1-2 AE, except 2 with grade 3 AE (neutropenia, severe lethargy). At 6-month time point, 80% (4/5) had thyroglobulin reduction, and 5 patients had repeat scan; 3 had partial response (60%).

CONCLUSION
In our patients who responded to re-differentiation therapy, 40% responded with only 1-2 weeks of DT. Identification of early response predictors could guide treatment duration.

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VALIDATION AND CULTURAL ADAPTATION OF THYPRO (THYROID PATIENT REPORTED OUTCOME) QUESTIONNAIRE IN *BAHASA* (INDONESIAN LANGUAGE): A PRELIMINARY STUDY

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Laurentius Aswin Pramono, Rudi Putranto, Aulia Rizka, Imam Subekti

Department of Internal Medicine Faculty of Medicine Universitas Indonesia, Cipto Mangunkusumo Hospital, Jakarta, Indonesia

OBJECTIVES
The Thyroid Patient Reported Outcome (ThyPRO) questionnaire is a specific tool to assess health-related quality of life of patients with thyroid diseases. The aim of this study is to determine the validity and reliability of ThyPRO questionnaire among patients with Graves' disease in *Bahasa* (Indonesian language).

METHODOLOGY
This is a preliminary study among patients with Graves' disease in Cipto Mangunkusumo Hospital, a national referral hospital in Jakarta, Indonesia. After a systematic two-way translation process, the questionnaire was adapted and culturally validated. Internal reliabilities of the ThyPRO scales were assessed using Cronbach's α coefficient.

RESULTS
Twenty patients with Graves' disease completed the questionnaire process. Internal consistency and reliability of the ThyPRO scales were good. Test-retest reliability was done by calculating intraclass correlation coefficient (ICC) for each of the items and domains of the ThyPRO questionnaire. The ICC was moderate (ICC between 0.5 – 0.75) and reliability was good (ICC score >0.75).

CONCLUSION
The ThyPRO may be a useful, valid, and reliable tool for measuring health-related quality of life among patients with Graves' disease in Indonesia.