

Global Summit on **PHYSIOLOGY AND METABOLISM OF THYROID**

April 18-19, 2023 | Webinar

The effect of retinoid acid in the ability of cold solid thyroid nodule to take-up radioactive iodine: A preliminary study**Andreas Lim***Universitas Padjadjaran, Indonesia*

One of the treatment options for benign thyroid nodules is RAI. However, this treatment is more effective for hot/warm solid thyroid nodules. Cold thyroid solid nodules are characterized by the lack of iodine uptake compared to normal thyroid tissue. Oral retinoid acid (RA) is a synthetic derivatives of vitamin A. The effect of RA to the uptake of radioactive iodine is still controversial. The aim of this study was to evaluate the effect of RA in the ability of cold solid thyroid nodule to take up RAI. Subjects with cold solid thyroid nodule based on ultrasonography and thyroid scintigraphy were included. Subjects with liver dysfunction, smoking, and pregnant were excluded. Each subject underwent thyroid uptake scintigraphy twice (pre- and post- RA consumption) using 35 – 37 MBq NaI-131. Subjects consumed RA with dose of 1 mg/kgBW followed with 1.5mg/kgBW. This study was approved by Dr. Hasan Sadikin General Hospital Ethic Committee.

A total of 12 cold thyroid solid nodules were evaluated. The mean percentage of the nodule's uptake value pre- and post-intervention were 1.11% and 0.62% respectively ($p = 0.004$), while normal thyroid tissue uptake value pre- and post-intervention were 27.57% and 13.40% respectively ($p = 0.002$). The percentage alteration of nodules and normal thyroid tissue uptake value were 42.4% and 51.5% lower respectively ($p = 0.354$).

This study showed that RA reduce the ability of cold solid thyroid nodule, as well as normal thyroid tissue, to take up RAI.

Biography

Andreas Lim has completed his medical doctor from Pelita Harapan University, Tangerang, Indonesia in 2004, and residency in nuclear medicine from Universitas Padjadjaran, Bandung Indonesia in 2020. At the moment, he is working as a full timer nuclear medicine specialist at Indriati Hospital Solo Baru, Central Java, Indonesia. He has published 2 papers in reputed international journals and has been serving as a reviewer in a reputed national journal.