



ICQMHeR

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Translational  
Health  
Research.



Interprofessional  
Education and  
Collaboration



Current Issues in  
Health Research  
and Development

# CERTIFICATE

International Conference On Medical  
and Health Research

Aisyah Elliyanti

as

## ORAL PRESENTER

November 13-14<sup>th</sup> 2018

Mercure Hotel Padang, West Sumatra



**Prof. Dr. Tafdil Husni, SE, MBA**

Rector of Andalas University



**Dr. rer. nat. Ikhwan Resmala Sudji, S.Si**

Head Committee



### Results:

- 29 samples are analyzed, and histopathology results are :
  - adenomatous goiter 6/29 (21%),
  - adenomatous and papillary carcinoma 4/29 (14%),
  - adenomatous and papillary carcinoma 1/29 (3%),
  - papillary thyroid carcinoma 14/29 (48%),
  - follicular thyroid carcinoma 2/29 (7%).

### Materials and methods :

- Samples were 27 thyroid tissues.
- Samples were analyzed for Sodium Iodide Symporter (NIS) expression by immunohistochemistry (IHC) and western blot (WB).
- Sodium iodide symporter antibody (FP5A) was used as a primary antibody for IHC staining and WB, and ATPas alpha antibody (M7-PB-E9, Thermo Scientific) as plasma membrane protein markers.
- Assessment of membrane staining using Her-2 / neu the Alred technique.

- The purpose of this study is to analyze the role of iodine transport in thyroid cell.
- Radioiodine has been used for adjuvant therapy of thyroid cancer.
- Sodium iodide symporter (NIS) has a pivotal expression and distribution patterns of NIS around Padang City

### Background:

Natruim Iodide Symporter Expression in Thyroid Tumor Patients in Padang City  
Alsyah Elliyanti<sup>1</sup>, Rony Rustam<sup>2</sup>, Dewi Rusnita<sup>3</sup>, Yenita<sup>4</sup>, Tofizah<sup>4</sup>, Yati D Biliant<sup>4</sup>  
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### Natruim Iodide Symporter Expression in Thyroid Tumor Patients in Padang City

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**Cont':****• Immunocytofluorescence**

- NIS expression at membrane show 2 of 31 samples contained tumor cells with a firm membrane staining pattern (++), and six samples are weak with only a small portion of the membrane was stained.
- Thirty of 31 samples express NIS at cytoplasm with vary intensity. Most tumors appear with cytoplasmic, medium (++) or weak (+) staining, and antigens are expressed in the majority of cell populations in each sample.

**Immunohistochemistry FPSA at Control Tissues**

Control negative tissues (a, c). Positive control (b, d). Cytoplasmic staining pattern show moderate intensity most of follicle cell , without stromal staining and vascular. Bar 100 $\mu$ m.

**Immunohistochemistry FPSA at Adenomatous tues**

FPSA staining to detect NIS expression. Cytoplasmic staining with very intensity. Weak (+) (a,c), moderate (++) (b,d). Strong (+++) (e,f). Most adenomatous gather show cytoplasmic NIS with intensity weak to moderate. Bar 100 $\mu$ m

**Immunohistochemistry FPSA pada Karzinoma Thyroid**

Pola perwakilan nisplastik pada immunohistochemical FSPS Karzinoma Thyroid. FSPS terdapat sebagian pada sel tumor, dengan intensitas lemah (+) (a,d), sedang (++) (b,e), kuat (+++) (c,f). Tak terdapat perwakilan pada sel stroma dan vaskular. Sedangkan besar sampel karzinoma thyroid menunjukkan ekspresi FSPS dengan intensitas ringan sampai intensitas sedang. Bar 100 $\mu$ m

Immunoperoksidase PPSA pada Karsinoma Thyroid



Polai pemeran membran pada Immunoperoksidase PPSA Karsinoma Thyroid, sampel dengan ekspresi membran negatif PPSA (a), ekspresi membran dengan intensitas lemah (+) (b) dan sedang (++) (c), Tak tampak pemeran pada sel crome dan vesikula. Bar 100,um

### Cont':

- The expression of NIS is detected at 75 kDa at 16 of 29 samples,
  - Sixteen of twenty-nine samples detect ~ 50 kDa.

### Conclusion :

- The NIS expression at membrane is found at thyroid papillary cancer.
- The NIS expression mostly at cytoplasmic with varies Intensity

**Thank You**