

## **EROSE: ENDOCRINOLOGISTS DOING RAPID ON-SITE EVALUATION :CASE EXAMPLES**

Guttler, Richard<sup>1</sup>

<sup>1</sup>Santa Monica Thyroid Center, Santa Monica, CA, USA

**Background/Purpose:** Recent CLIA ruling allows payment for eROSE. eROSE as a first pass on the nodule FNA finds defects in technique such as bloody slides without cells. . CPD codes # 88172 and 88177 are used.

eRose follicular cell recognition of papillary, Hurthle cell, and micro follicular neoplasms can collect " OnTheFly" (OTF) samples for molecular markers.

**Methods:** First pass smallest needle short dwell time. Air dried DifQuik. Fischer kit. Adequate cells bill #88172. Inadequate cells or excessive blood would result in change of technique second pass. The bill # 88177.

eROSE: cells recognized as possible neoplasm allows collection of various molecular markers. 16 thyroid cancer markers, calcitonin, and flow cytometry, and Afirma classifier.( Asuragen, Veracyte.).

**Results:** Examples:

Case 1. Upper pole nodule eROSE= Extreme eccentric nuclei. OTF = Calcitonin needle washout and serum positive for Calcitonin. Surg PATH=C Cell Hyperplasia Nodule.

Case 2 Thyroid nodule eROSE = Papillary Carcinoma cytology OTF = BRAF and other markers Surg PATH = BRAF + papillary CA.

Case 3 Thyroid nodule eROSE= Microfollicular Hurthle cells OTF BRAF, Afirma markers held.

Cytology= Microfollicles and Hurthle Cell metaplasia in Hashimoto's thyroiditis. Discard markers tests.

**Discussion & Conclusion:** eROSE can be combined with the intimate knowledge of the patient that only his or her endocrinologist has to improve patient care and decrease inadequate samples sent for interpretation. There is less chance for over-reading inadequate samples by pathologist. The ability to recognize neoplasm patterns allows collection of molecular markers. Training in eROSE by AACE, ATA, and Endocrine Society with microscope 101, will increase the number of endocrinologists who will include eROSE into their FNA protocol.