Malignancy in AUS/FLUS: can we create a predictive score?

Silvia Sofia Silva, Ana Alves Rafael, Ricardo Rodrigues Marques, Luis Viana Fernandes

CHLO, EPE - Hospital Egas Moniz - Cirurgia II Department - Lisboa, Portugal

OBJECTIVES

Thyroid AUS/FLUS lesions continue to be a grey area regarding the surgery to be carried out. Our aim was to create a predictive malignancy score to help in surgical decision.

METHODS

Retrospective study of 2981 patients and 3557 thyroid Fine-needle aspirations (FNAs) from January 2012 to December 2014. Ultrasound and cytological findings considered suspicious by the ATA guidelines were analyzed. Malignant group was compared with a control group of benign histology using SPSS analysis.

RESULTS

From our Data AUS/FLUS rate was 15.9% (564/3557). 180 patients underwent surgery. Each nodule was divided in malignant (N=54) and benign (control group) by it's final histology. Was marked the presence of each parameter (ecographic and citologic).

Ecographic Findings
- Irregular or microlobulated margin
- Taller than wide nodule
- Hypoechogenicity
- Intrinsinc vascularity
- Interrupted peripheral calcifications or invasion
- Microcalcifications

Citologic Findings
- Hurthle Cells
- Microlucologies
- Nuclear abnormalities

| Hypoechoic nodules (HN) and ecographic microcalcifications (MC) are individually associated with malignancy. |
| Taller than wide shape nodules and vascularity findings are not statistic associated. |
| Microfollicular (MF). Hurthle cells (HC) and nuclear changes (NC) are always present in malignant cases but without individual association. |

Logistic regression: associating the 5 criteria increased probability of carcinoma.

- Sensibility and specificity were 86.2%/72.7% with a cut-off point of 0.50.

CONCLUSIONS

A moderate sensibility and a high specificity for malignancy were observed in the association between hypoechoic nodule, ecographic microcalcifications, microfollicular lesions, Hürthle cells and nuclear changes. These criteria can be useful in surgical decision contributing for a possible decrease in the reintervention rate.