

The likelihood of thyroid malignancy in a single thyroid nodule in HIV-Positive Patients

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Abstract

Statement of the Problem: Human immunodeficiency viral (HIV) infection is associated with an increased risk of malignancy. The likelihood of thyroid malignancy in euthyroid patients with a single thyroid nodule in our environment is about 15-20%, this will often require thyroid biopsy to exclude malignancy. There is an increased number of euthyroid and HIV-positive patients who presents to our facilities with a single thyroid nodule. It is difficult to take decision on whether or not a biopsy should be performed because of risk of infection. In addition, there are no guidelines or data on this subject in the literature.

The aim of this study was to determine whether HIV infection is associated with an increased risk of malignancy in patients who are HIV-positive and have a single thyroid nodule. The results of this study will determine whether a thyroid biopsy should be performed in these patients

Methodology: We include all patients with a single thyroid nodule greater than 1cm that are euthyroid and HIV-positive. An ultrasound guided Core thyroid biopsy was performed and tissue sample sent for histology.

Results were analysed based on presence or absence of malignancy, type of malignancy and gender.

Ethical clearance was obtained from the institutional review board **Findings:** A total of 46 patients were included in this study, comprising of 32(70%) females and 14(30%) males.

Of the total number of patients, 14(30%) patients had a histological evidence of thyroid malignancy, this included follicular 6(43%), papillary 4(29%), anaplastic 1(7%), medullary 1(7%) and lymphoma 2(14%).

Conclusion & Significance: This study showed that the likelihood of malignancy in a single thyroid nodule in a euthyroid, HIV-positive patients is 30%. We recommend core thyroid biopsy in these patients. Further studies with a large patient population are required to validate this data

Recent Publications

1. African Journal of Endocrinology and Metabolism 2016;(2) 1: 53-59. Use of single fixed dose radioactive iodine for the treatment of Grave's Disease.

Jawa, ZM, Anumah, F Odumodu K

2. J Nucl Med Radiat Ther 2016, 7:6. Radionuclide shuntography for the evaluation of ventriculo-peritoneal shunt in children with hydrocephalus. **Jawa, Z.M et al.**

3. African Journal of Paed Nephrology 2016; 3:65-69. Renography in Children seen at National Hospital Abuja

Jawa, Z.M., Oniyangi O, Ahmed R.I, Ismail A, Ononiwu U.N.

4. International Journal of Current Research 2017; 9(6): 53104-53110. Anaemia in Cancer patients undergoing Radiotherapy: Our experience at the National Hospital Abuja.

Aruah S.C, Jawa Z.M., Oche Ogbe, et all

5. Journal of Neoplasia 2017; 2: 1-7. Aneamia in Cancer Patients undergoing Radiotherapy and Chemotherapy at the National Hospital Abuja.

Aruah SC, Oyeseun R, Ogbe Oche, Jawa, Z

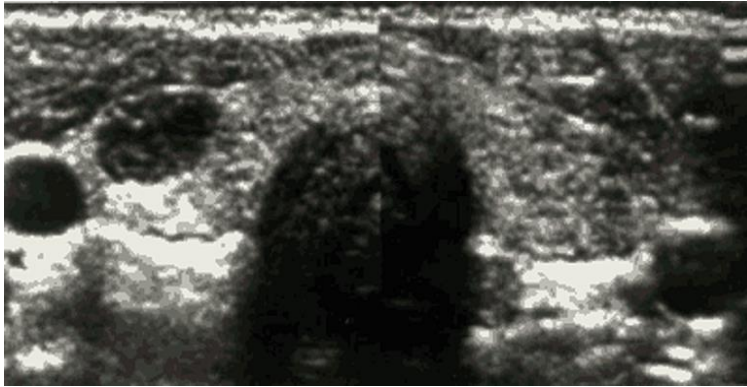


Figure 1: Ultrasound scan showing a single solid nodule on the right thyroid lobe.

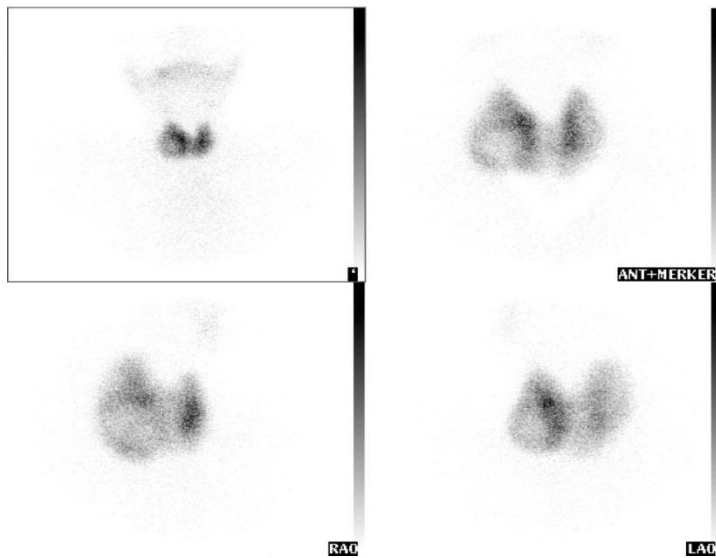


Figure 2: Thyroid scintigraphy with Tc-99m showing a cold nodule in the right thyroid lobe in

A euthyroid, HIV-positive patient, the likelihood of malignancy in this setting is about 30%.

Biography:



Dr Jawa has dual specialist qualifications in Nuclear Medicine and Radiology. He is European Board certified in Nuclear medicine.

He is currently a senior consultant and Head, nuclear medicine at the National Hospital Abuja. He is the Chief Editor of the MDCAN Medical journal and an editorial board member of the Science Federation International journal of Nuclear Sciences.

Jawa has participated in various activities of the International Atomic Energy Agency (IAEA) including, a member of the review board of the IAEA nuclear medicine procedure manual.

His research interest is in tropical Nuclear medicine and he has numerous publications and has presented papers at various national and international conferences. In 2013, his research presentation (Potential benefits of MUGA scan in HIV-related cardiac disorders) received an award of distinction at the International conference on Integrated Medical Imaging In Cardiovascular Diseases (IMIC) in Vienna, Austria.

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Notes/Comments: this is the only study ever done in HIV-positive patients with a single thyroid nodule. As a result of this study, many HIV-positive patients in our institution have been diagnosed with thyroid cancer and early appropriate treatment leading to increasing patient's survival. A local guideline is now well developed.