USES OF HYBRID IMAGES IN THE DIAGNOSIS OF UNILATERAL CONDYLAR HYPERPLASIA

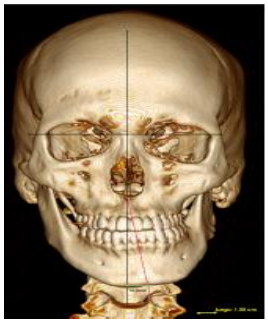
Dr. Juan Manuel Muñoz Acosta.
Specialist in Nuclear Medicine, Clínica Imbanaco - Grupo QuironSalud. Cali - Colombia

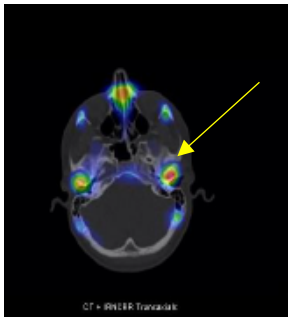
Abstract

Condylar hyperplasia (CH) is a disease of the temporomandibular joint that generates mainly unilateral dento-facial deformity.

The diagnosis is initially clinical and is based mainly on the abnormalities found in the physical examination, however the use of diagnostic images has allowed the standardization of the process of diagnosis and quantification of the severity of the pathology with the aim of a better therapeutic approach. Since the advent of PET and its use in the diagnosis and follow-up of oncological pathologies, there is a growing need to use hybrid images that simultaneously evaluate functional alterations and associated morphological alterations.

In the context of CH, nuclear medicine through the use of SPECT has played an important role, allowing the differentiation of patients with active disease from those with inactive disease, however the scintigraphic study does not allow evaluating the status of temporo mandibular join (TMJ), nor does it allow to identify a probable mechanism, since lacking morphological information, it does not allow an adequate evaluation of the size of the condyle, neck or its mandibular branch, likewise, the degree of affectation of the glenoid cavity cannot be identified , in which -a priori- reactive bone changes can eventually be produced which in turn result in radiopharmaceutical uptake and an increase in radioactive counts in the joint studied. The concomitant use of tomographic images, by means of a low-dose CT, allows the evaluation of the different components of the joint (condyle, neck and ramus), at the same time that it allows to evaluate the degree of deviation of the mandibular midline with respect to the midface line, the presence of associated morphological alterations of the upper jaw and possible sequelae of the pathology, allowing a better approach to the patient with a diagnosis of unilateral condylar hyperplasia.





Recent Publications

1. SPECT-CT correlation in the diagnosis of unilateral Condylar Hiperplasia. Diagnostics 2021, 11, 477.

2. Comparación de cuatro métodos de valoración cuantitativa de la SPECT con ^{99m}Tc-MDP en pacientes con sospecha clínica de hiperplasia condilar, 2018.Vol 38. Num 2. Pag 72-79.



Biography

- San Joan University Hospital in Alicante – Spain. Resident in Nuclear Medicine (2001 -2005).
- Biomedical Research Institute (CIBIR), La Rioja – Spain. Specialist in Nuclear Medicine (2005 -2013).
- Imbanaco clinic – QuirónSalud group, Cali – Colombia. Specialist in Nuclear Medicine (2013 – Actually).

Email: juan.munoz@imbanaco.com.co