

## **DIPNECH – a preneoplastic lesion or a separate biological entity?**

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### **ABSTRACT**

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**Introduction:** DIPNECH is a very rare condition with under 100 cases reported in the scientific literature worldwide. The new WHO classification of lung tumors considers it as a preneoplastic condition, leading to further growth of pulmonary carcinoid tumors. Prior to that, proliferating neuroendocrine, or NE cells in the respiratory epithelium develop into tumorlets – lesions less than 5mm in the largest size, visible in diagnostic imaging as round shadows and sometimes mistake for metastases of a tumor of unknown origin.

**Purpose:** The goal here is to strongly recommend the foundation of a world wide web (www) based portal with clinical information about DIPNECH, also, if possible, containing reports of all the cases ever diagnosed. This will create an easily accessible source of information, which could increase the rate of diagnosis for this condition. Thanks to further possibilities of scientific exchange and

development such as a database could become a vast archive of pulmonary preneoplastic lesions with possible clues to understanding mechanisms of carcinogenesis.

**Discussion:** It is yet unclear, if DIPNECH could be a predecessor of other neuroendocrine tumors, at least being one of their possible origins, or is the growth of NE cells around the primary neuroendocrine tumor a reaction for airway obstruction and hypoxia.

**Conclusion:** According to information gathered through electronic search, further scientific investigation of DIPNECH might be very helpful in understanding carcinogenesis in lung.

**Key words:** DIPNECH, PNECH, neuroendocrine cell hyperplasia, pulmonary preneoplastic lesions, diffuse idiopathic pulmonary neuroendocrine cell hyperplasia

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