



Research Paper

## An unusual localization of encapsulated Palisading Neuroma: (Case report)

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**Abstract :** Encapsulated palisading neuroma (EPN), also known as solitary circumscribed neuroma, is a rare benign nerve tumor that progresses slowly over several months or years. We report the case of a 42-year-old man with no particular pathological history, who consulted us for a small nodular mass in the occipital region, which had been evolving for a year. Management consisted of excisional biopsy under local anaesthetic. Pathological examination of the excised specimen revealed a well-circumscribed nodule encapsulated with schwann cell proliferation. Immunohistochemistry confirmed the diagnosis of solitary circumscribed neuroma.

**Key words:** solitary circumscribed neuroma; occipital location; epidermal cyst.

**Résumé :** Nous rapportons le cas d'une localisation rare de la neurofibromatose type 1 chez un patient de 36 ans. Il s'agit d'une tumeur bénigne d'origine neurologique. La NF-1 a une symptomatologie sévère à minime, la localisation palatine est rare, et se présente sous forme d'une masse sous muqueuse et non douloureuses. Le diagnostic est retenu devant un ensemble d'éléments cliniques et le résultat histologique de la biopsie. L'excision chirurgicale complète constitue le traitement. La récurrence n'est pas rare et atteint les 40% en cas d'exérèse incomplète.

**Mots clés :** diagnostic. Neurofibrome. Neurofibromatose type 1. Palais. Prises-en charge

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### I. Introduction:

Encapsulated palisading neuroma (EPN), also known as solitary circumscribed neuroma, is a rare benign nerve tumor that progresses slowly over several months or years. It occurs preferentially in the facial skin, near orifices in the cephalic region, and rarely in the oral mucosa. The clinical presentation is often that of a small subcutaneous nodule, rarely ulcerated, often no more than 1 cm in size, painless and mobile. NPE is diagnosed histologically, and treatment is based on excision. We report an unusual case of occipital NPE.

### II. Case Report :

A 42-year-old man with no specific pathological history presented with a small nodular mass in the occipital region, which had been evolving for a year. Clinical examination revealed a nodule measuring approximately 2cm, painless, well limited and mobile in relation to the deep and superficial planes. Biopsy under local anaesthetic revealed a whitish nodule. Pathological examination of the excised specimen revealed a well-circumscribed, encapsulated nodule with proliferation of schwann cells grouped in intertwined bundles ; these cells are oriented more or less parallel within the bundles. Immunohistochemistry showed strong positivity of the cells to the S100 protein. Thus the diagnosis of solitary circumscribed neurons was made.

### III. Discussion :

Palisading encapsulated neuroma(PEN) or solitary circumscribed neuroma(SCN) is a rare benign nerve tumor first described in 1972 by Reed et al. [1] This lesion is located particularly on the face, in the periorificial regions (buccal; nasal; orbital) other localizations are possible the limbs the trunk, the penis, more rarely the buccal or nasal mucosa. [1-2] While Ioannis et al, in a review of the literature, report a series of 55 NCS with a palatal

localization in 60%. [3] Our patient's occipital location had never been described in the literature. Clinically, the NPE presents as an infra- or centimetric nodule, well limited, mobile in relation to the deep and superficial planes, with a normal or slightly altered appearance of the skin opposite. Epidermal, sebaceous [1-4] or trichilemmal cysts are often considered, as in our patient with an occipital NPE.

Macroscopically, NPE presents as a firm, greyish-white nodule.

Histologically, the nodule is intra- or subdermal, partially encapsulated by long intertwined bundles separated by characteristic clear spaces. The cells forming these bundles are monomorphic, with poorly defined eosinophilic cytoplasm and regular hyperchromatic nuclei. [4] Differential diagnosis is made with : - Plexiform neurofibroma, a non-encapsulated subcutaneous tumor formed by several nodules involving nerve trunks or a plexus, and formed by cells with curved nuclei that are arranged in bundles in a myxoid background. - Schwannoma, distinguished by the presence of Antony zones A and B, Verocay nodules and hyalinization of vessel walls, and lacking axons. - Amputation neuroma, which, apart from being painful, is formed by nerve nets of Schwann cells arranged more or less parallel within a fibrous tissue, and by its capsule, which is made up of spongy fibrous trousseaux.

Unlike other benign tumors, NPE has never been associated with neurofibromatosis or multiple endocrine neoplasia syndrome. [4-5]

#### **IV. Conclusion :**

Encapsulated palisading neuroma (EPN), also known as solitary circumscribed neuroma, is a rare benign nerve tumor. The clinical appearance of the tumor is nonspecific, and the diagnosis is made by histological examination. Treatment is based on excision. No recurrence of NPE, even in cases of incomplete excision.

Conflict of interest: the authors declare no conflict of interest.

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