PICTORIAL

NEURILEMMOMA OF EXTERNAL EAR, CONFIRMED BY IMMUNOHISTOCHEMISTRY–A TELEPATHOLOGICAL COMMUNICATION BETWEEN CYPRUS AND INDIA

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Figure-1: Clinical picture of the swelling

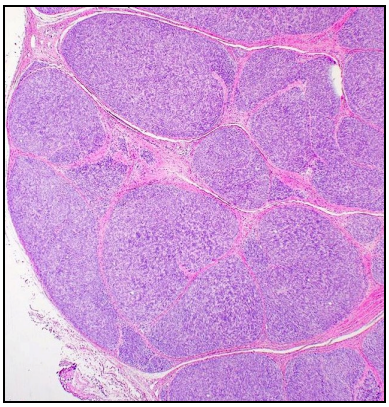

Figure-2: Cords of Scwann cells showing characteristic Antoni A and Antoni B arrangements. (Hematoxylin and Eosin staining X 40)

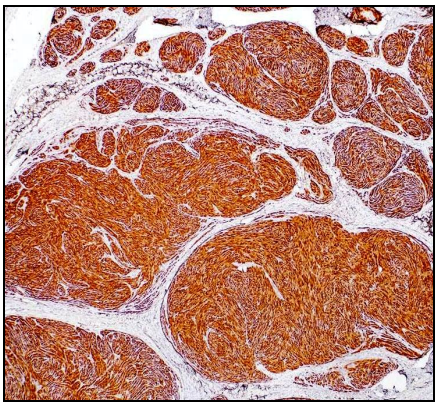

Figure-3: Neoplastic cells showing a strong positive expression for S – 100 (X 40)

J Ayub Med Coll Abbottabad 2016;28(4):836–7

A 27 year old Cypriot male presented to the Hippocrateon hospital of dermatology for the evaluation of a painless swelling of external ear persisted from 1 year duration. Initially it was small but gradually reached to its current size.

Clinical examination revealed a round swelling on pinna measuring about 3×3 cm in dimension. The overlying skin was slightly reddish in colour without any ulceration. On palpation the swelling was found to be movable. (Figure-1). The cervical lymph nodes were non–palpable. Fine needle Aspiration cytology was done but it was not conclusive. Based on the site and clinical feature, provisional diagnosis of benign adnexal tumour was made. Finally an operation was planned and the lesion was excised conservatively under anaesthesia.

The Microscopic examination using Hematoxylin and Eosin stains showed numerous cords of cells that had either short, fusiform or rounded shapes, histologically identical to shwann cells separated by fibrous septa. Intra – nodular cells, at few areas exhibited a typical Antoni A appearance with a palisaded arrangement; however few areas showed a loss of palisading signified Antoni B type of arrangement. (Figure-2) An area of haemorrhage showed a collection of numerous extra - vasated RBCs. Few areas showed high vascularity with multiple dilated blood vessels surrounded by endothelial cells.

The diagnosis of Neurilemmoma was made on the basis of Histological pictures. We approached Dr Manas Bajpai (Oral and Maxillofacial Pathologist, India) for expert comments and his opinion about the diagnosis and follow up of the patient through email and telephonic conversation. Dr Bajpai confirmed our diagnosis, he further suggested an Immuno-histochemical staining using antibodies to S-100 proteins. Immuno-histochemical staining of the specimen for S -100 marker was carried out using immuno simple stain kit (Athens, Greece)

The immune-histochemical staining revealed a strong expression of S – 100 markers for the cell. (Figure -3) Hence it confirmed the diagnosis of Neurilemmoma.

Neurilemmoma/Scwannoma is a benign peripheral nerve sheath tumour.[1] clinically presents as a slow growing mass. Definite diagnosis should be based on the histological and immune-histochemical findings. Typically, histological analysis demonstrates that a schwannoma is composed of S-100 protein positive Schwann cells arranged in 2 growth patterns, namely Antoni A and B.[2] Very few cases of neurilemmoma of external ear has been reported in the literature.

The present case describes a rare lesion of external ear; also it highlights the importance of tele-pathology in routine diagnosis and the utility of immunohistochemistry in final diagnosis.

Tele-pathology is the practice of pathology at a distance. It uses telecommunications technology to facilitate the transfer of image-rich pathology data between distant locations for the purposes of diagnosis, education, and research. [3] The present case was diagnosed by the communication between a dermatologist of Nicosia (Cyprus) and Oral and Maxillofacial Pathologist of Jaipur (India).

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Received: 26 April, 2016	*Revised: -*	*Accepted: 7 August, 2016*

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