

## LETTER TO EDITOR

### Lymph node angioma: Capsule or hilar angioma?

Handra-Luca A<sup>1,2</sup>

<sup>1</sup>APHP GHU Avicenne, Bobigny, France, and <sup>2</sup>Université Paris Nord Sorbonne Cite, UFR SMBH Bobigny, France.

Dear Editor,

Lymph node angiomas are rarely reported. Most tumour are located in the lymph node parenchyma.<sup>1,2</sup> We had the occasion to observe angioma-type lesions located in the hilus of cervical lymph nodes, resected during the neck dissection procedure for buccal squamous cell carcinoma (T1N0Mx). The medical history (woman, 49-year-old) revealed ankylosing spondylitis (for 15 years treated by corticoids). Radiochemotherapy for a lung small cell carcinoma (revealed by a superior *vena cava* syndrome) was made during the 8 months before the oral/neck dissection resection. The angiomas were detected for 5 lymph nodes, of bilateral cervical location. The total number of resected lymph nodes was 10. The peculiarity of the lesions consisted in the hilar and capsular location of the angioma-type lesions (1-5 mm) (Figs. 1 & 2). The vessels were of varied types comprising arterio-venular and capillary. Vascular cavities of indeterminate nature, possibly including of shunt-type, were also detected. Several vessels and vascular cavities contained fibrous, wall tufts. The subcapsular sinus was focally difficult to identify or changed to irregular cavities in continuity with the angioma vessels. The intervascular fibrous stroma of the angiomas, consisted of dense and loose connective tissues. The lymph node capsule was in continuity with the stroma, however not identifiable between the lymph node and the stroma at the site of angioma. The stroma also contained several adipocytes, rare nerves as well as disperse myofibroblasts/smooth muscle cells. Erythrocyte suffusion was observed for one of the lesions. Other detected lesions of the lymph node parenchyma were focal adipose involution and mild sinus histiocytosis. Several large vessels in the peri-ganglionar adipose tissue, at proximity and at distance from the lymph node, showed wall tufts.

The lesions we have observed were similar to those reported by Lott and Davies<sup>3</sup> as miscellaneous lesions of hilar vascular and muscular proliferation. An angioleiomyomatous differentiation could also be mentioned as adipocytes were intermingled to the fibrous tissue and disperse muscle-appearing cells.<sup>4</sup> The association of focal vascular transformation of sinuses could be discussed although the lesions we report were mainly located in the hilar, capsular and pericapsular zones. The amount of inflammatory change did not suggest associated bacillary angiomatosis lesions. The diagnoses of angiosarcoma and Kaposi sarcoma were not retained as the lesions did not show increased vascular and/or cellular density and atypia.<sup>1</sup> The histogenesis of the lesions we report, of hilar development in some of the neck lymph nodes, without adenomegaly, is difficult to precise. Post-radiotherapy hilar fibrosis (with capsule thickening) might be one of the explanations, along with that of neck vessel malformation-type lesions. To note would be the intracapsular location of the lesions, the presence of vessel tufts and of adipose tissue and nerves. Whether the tumoral superior *vena cava* syndrome might have interfered with the development of collateral and/or shunt vessels is difficult to establish retrospectively. Of interest would be the report of lymph node angioma in association to colon angiodysplasia.<sup>5</sup> In addition, whether the corticoid treatment, given for over 10 years for ankylosing spondylitis, impacted on vascular abnormalities is difficult to determine.

In conclusion, we report a case of lymph node angioma of hilar and capsular development occurring in the context of lung small cell carcinoma and superior vena cava syndrome and oral squamous cell carcinoma.

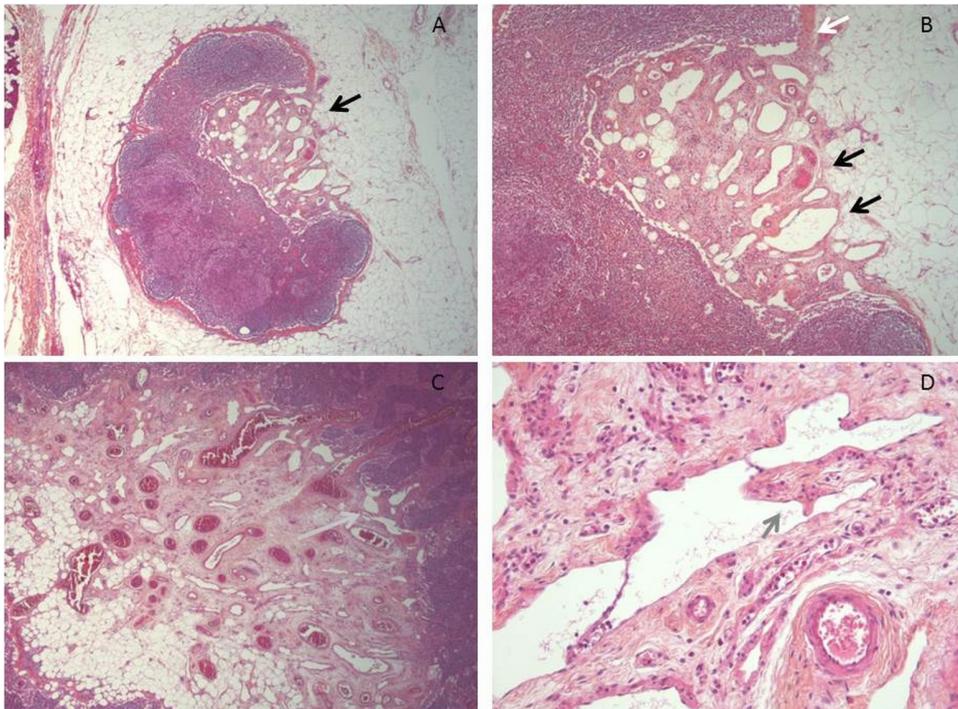


FIG. 1: The angiomas were located in the hilum of the lymph nodes and involved focally the lymph node capsule (A-C: black arrow/angioma, white arrow/capsule, light-gray arrow/vessels contiguous with the subcapsular sinus). Vascular tufts were observed (D: dark-gray arrow/tufts) [H&E, x2.5 (A); x5 (B,C); x40 (D)].

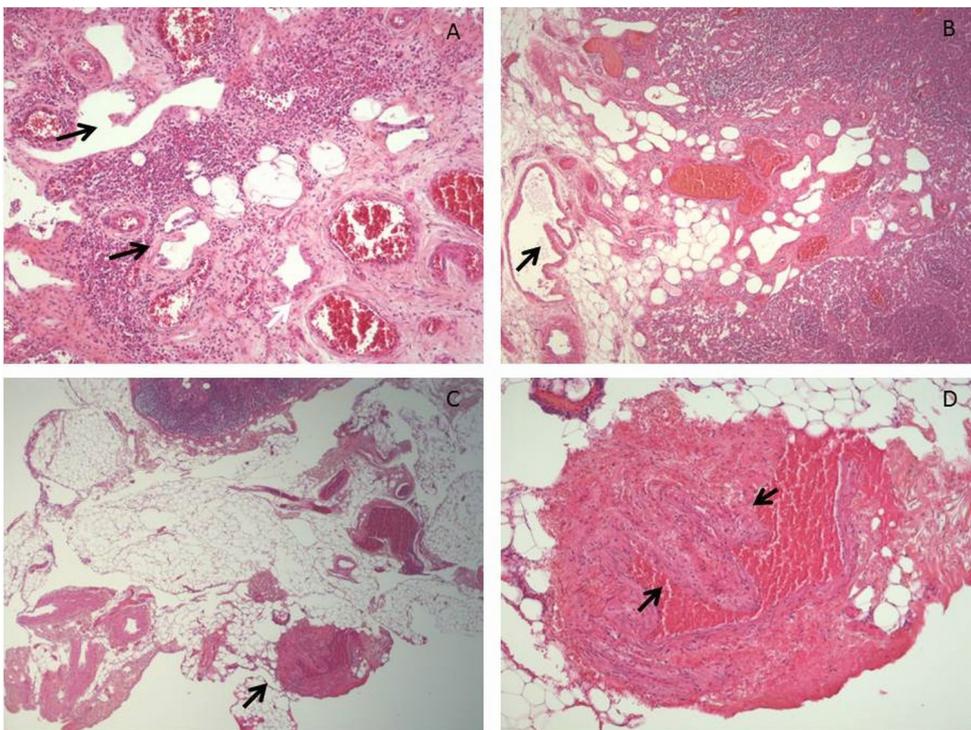


FIG. 2: Vascular tufts were observed not only in vascular cavities of the angioma but also in peri-ganglionic vessels (in the adipose tissue), either at proximity or at distance (A-D: black arrows/tufts). The stroma, contiguous focally with the lymph node capsule, was fibro-adipose and contained disperse myofibroblasts or smooth muscle cells (A: white arrow/myofibroblasts/smooth muscle cells) [H&E, x2.5 (C); x5 (B); x10 (D); x20 (A)].

## ACKNOWLEDGEMENT

The authors acknowledge Dr S Benzakin as well as M Rodrigues, M Salogo, S El Sayeh, J Raleche, K Cheblal, C Jamet, V Guzal, C Van Vetteren, I Pluchart, L Jovanov, F Spindler, B Mechekour, N Delva, F Bouchard, B Mechekour, M De Souza, MC Portenier, AM/APHP: Archives medicales/APHP Avicenne, BIUM and the CDMP/APHP teams.

### *Abbreviations:*

APHP - Assistance Publique Hopitaux de Paris

BIUM - Bibliotheque InterUniversitaire de Medecine

CDMP - Centre de Documentation Medico-Pharmaceutique

## REFERENCES

1. Rosai J. Rosai and Ackerman's Surgical Pathology. 10<sup>th</sup> Edition Expert Consult. Philadelphia PA: Elsevier Mosby, 2011.
2. Terada T. Capillary cavernous hemangioma of the lymph node. Int J Clin Exp Pathol. 2013; 6: 1200-1.
3. Lott MF, Davies JD. Lymph node hypervascularity: Haemangiomatoid lesions and pan-nodal vasodilatation. J Pathol. 1983; 140: 209-19.
4. Allen PW, Hoffman GJ. Fat in angiomyomatous hamartoma of lymph node. Am J Surg Pathol. 1993; 17: 748-9.
5. Almagro UA, Choi H, Rouse TM. Hemangioma in a lymph node. Arch Pathol Lab Med. 1985; 109: 576-8.