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RESEARCH ARTICLE

CHOROIDAL METASTASIS INDICATIVE OF DISSEMINATED BRONCHOPULMONARY CANCER: TWO CASES.

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Abstract

Introduction: ocular metastases are not common in bronchopulmonary cancers, and rarely inaugural.

Observation: we report two cases of symptomatic choroidal metastasis, inaugural of bronchial carcinoma, in two patients aged 38 and 33 years old, respectively. The revealing signs are metamorphosis associated with a sharp drop in visual acuity. The histological type of the primary cancer is a slightly differentiated adenocarcinoma in the first case and a small cell carcinoma in the second case, respectively.

An extended checkup confirmed the existence of liver and bone metastases in the first patient and the existence of adrenal metastases in the second patient. The evolution of these two cases has been marked by the death of both patients.

Conclusion: ocular metastases may be inaugural of bronchial cancer and are often associated with other secondary locations. Starting early treatment could improve the visual prognosis of patients. However, the overall prognosis remains poor.

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Introduction:-

Ocular metastases are rare cases, which are observed in 4 to 8% of the patients' population having cancer in autoptic series. The lung is the second main tumor location after the breast [1-2]. Ocular metastases often occur at an advanced stage of the disease, usually accompanied by the existence of other secondary locations. We report the observations related to two patients who presented symptomatic choroidal metastases, inaugural bronchial carcinoma.

Observations:-

Case 1:-

The patient is 38-year-old, car body painter, heavy ex-smoker (2 pack per day), tobacco sniffer for 15 years. The beginning of the symptomatology dates back to 5 months by the progressive start and establishment of a dry cough and dyspnea stage 2 mMRC. Subsequently, the patient presented metamorphosis, initially, at the level of the left eye and then at the right eye. This was followed by a brutal and bilateral decrease in visual acuity in parallel to an overall health alteration of the patient. An ocular ultrasound (Figure 1) showed a lens at the level of the right eye, an anechoic lens, an intravitreal organization, a posterior pole thickening, no retinal detachment and no excavation of the papilla. In the left eye, there is an anechoic lens in place, an intravitreal organization, a thickening of the posterior pole, with the presence of a retinal, hyperechoic, homogeneous formation in a biconvex lens, lateralized to the temporal side, vascularized with color Doppler and measuring 10.4 / 4.7 mm and no excavation of the papilla.

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A thoracic radio showed a dense, inhomogeneous opacity with a left hilar projection at the outer boundary of the parenchymal tract. At admission, dyspneic patient, in poor general condition (WHO score of 3). The pleuropulmonary examination is more or less normal and the patient presents with left diffuse percussion left pain, heterogeneous and painful hepatomegaly, cervical adenopathy's and Axillary lesions. Thoracic CT (Fig. 1) demonstrated a left hilar tissue process associated with pleural thickening with secondary bone and hepatic sites. Soft bronchoscopy shows an infiltrative stenosis of the upper left lobar, with thickening of the lobar spur.

Figure 1:



The bronchial biopsy of tumor infiltration concluded that the adenocarcinoma was not very differentiated and infiltrating. An extended checkup showed secondary left-sided ocular tissue lesions without other cerebral parenchyma abnormalities at the cerebral CT, an ultrasound appearance compatible with multiple secondary hepatic nodules. The patient died just after confirmation of his bronchogenic carcinoma.

Case 2:-

The patient is 33 years old, construction worker, chronic smoker (10 pack per day), hashish and cannabis consumer. For the past month, the patient has had severe progressive frontal headache associated with a progressive pain in the right eye, which was complicated by a significant decrease in visual acuity 15 days later, all evolving in a context of a decline in the general state of health. The ocular ultrasound showed a total detachment of the retina in the right eye, of secondary aspect, probably in relation with choroidal metastases. A thoracic radio showed a coarse triangular homogeneous dense opacity in the upper third of the left lung, associated with a homogeneous dense opacity with right lateral projection. At admission, the patient is in good general health condition (WHO score 1), presents a right palpebral ptosis. The pleuro-pulmonary examination is unusual as well as the rest of the somatic examination. Thoracic CT (Fig. 2) showed a right parenchyma tissue process classified as stage 4, with a swollen aspect of the left adrenal, which may be secondary. The cranio-orbital CT (Fig. 3) shows two subcortical tissue-like hypodense nodular lesions parietal left and right frontal, which are enhanced annular after injection of PDC 14/17 mm and 15/12 mm, associated with peri-lesions edema without mass effect on the median structures. On the orbital stage: right vitreous is filled by a heterogeneous dense material with a homolateral detachment, thickening of the two optical nerves. Soft bronchoscopy has objectified a thickened and infiltrated upper lobar spur with tumor-like infiltration of the upper lobar with multiple tumorous buds bleeding spontaneously and tumor biopsies and the upper lobar spur concluded the existence of a neuroendocrine tumor. Right brain and eye radiotherapy was initiated, but the patient died before starting chemotherapy.

Figure 2:

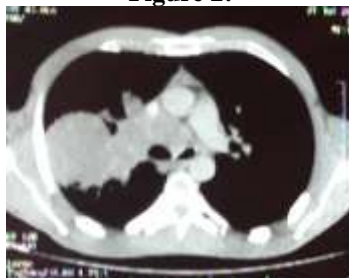
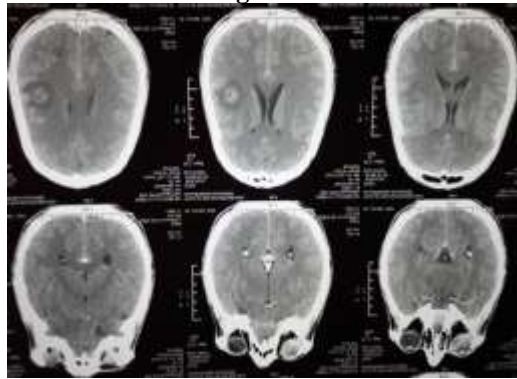


Figure 3:**Discussion:-**

Ocular metastases are rare during bronchial cancers. According to a study by Shields et al of 520 eyes affected by uveal metastases, the choroid remains the most common location. Tumors usually occur in the posterior pole of the eye with an average of two tumors per eye. About one-third of the patients have no primary cancer at the time of ocular diagnosis. Breast and lung cancer cases account for more than two-thirds of primary tumors. [3]. In the series of Kreusel et al. [4], in 84 patients with bronchopulmonary carcinoma, the prevalence of choroidal metastases was estimated to be 7.1%.

The hematogenous dissemination of the primary cancer, especially by the posterior ciliary arteries, explains the preferential localization of these metastases in the postero-superior-lateral part of the choroid, hyper-vascularized part. The presence of metastasis of the iris, ciliary bodies, optic nerve and appendages is sometimes associated with that of choroidal metastases. [5]

Ocular metastases do not depend on the histological type of bronchial cancer [6.7]. Numerous observations of adenocarcinoma and bronchial carcinoid reported no significant difference in ophthalmology. [8].

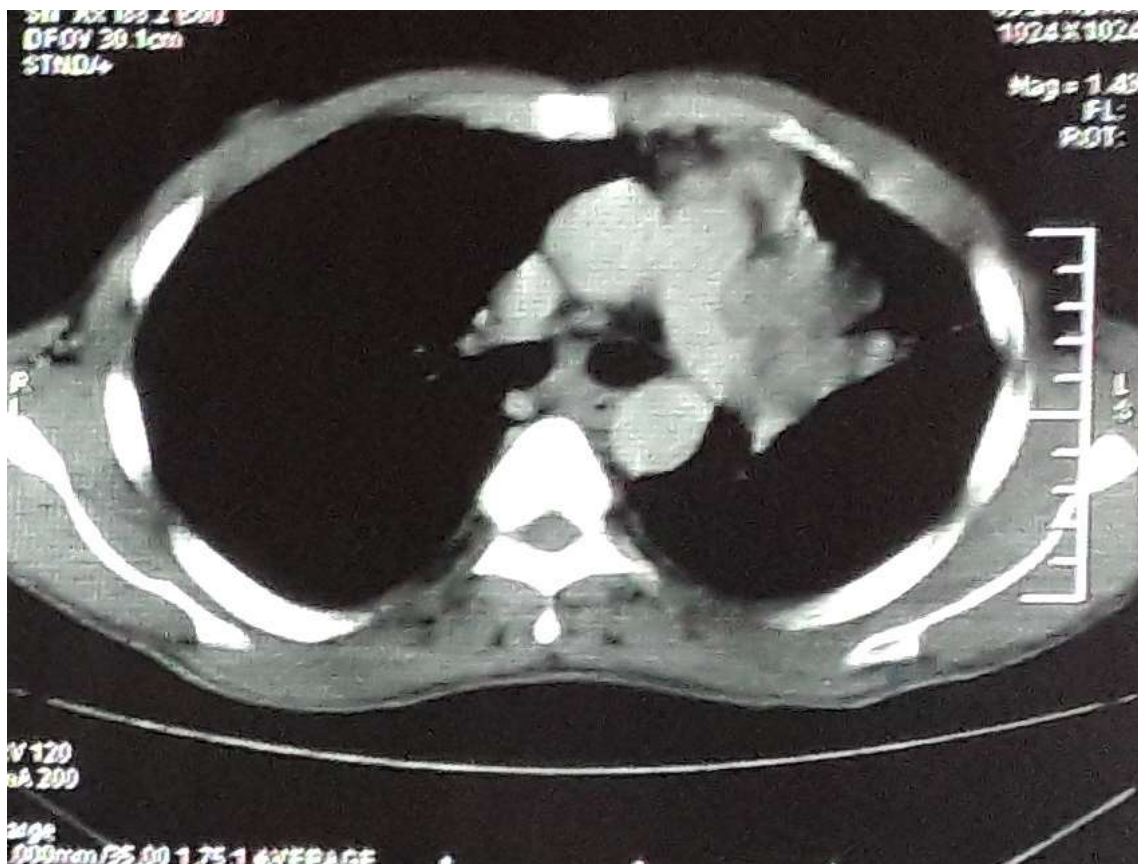
Symptoms of the patient with intraocular metastasis are largely dependent on the location of the metastasis. In cases of involvement of the posterior part of the uvea, symptoms include decreased vision, decreased visual field, photopsia and / or floaters [9]. There may be pain if the tumor invades the ciliary nerves or if secondary glaucoma occurs. In cases of involvement of the anterior part of the uvea, the symptoms include a decrease in vision, a visible mass, redness to the eye and photophobia. Pain may also be present if there is secondary iritis or secondary glaucoma [9].

The diagnosis is often made by the fundus of the eye, showing prominent, yellowish, homogeneous lesions, sometimes responsible for a serious retinal detachment. In case of diagnosis difficulty, eye ultrasound can confirm the diagnosis by showing a dome tumor lesion with, sometimes, wavy or umbilical surface, as well as the angiography, which objectifies a mask effect with diffuse hypo fluorescence in early times and progressive hyper-fluorescence in later times [10].

Treatment of choroidal and papillary metastases is based on radiotherapy and / or chemotherapy [11.12]. Overall response rates reached 80% of the cases [1.12]. The visual function is improved in one third of the cases, slightly improved or stabilized in one third of the cases [4.13]. Complications are rare, observed in 5% of the cases. These include cataracts, radiation-induced neuropathy, radiation retinopathy and neo-vascular glaucoma [13].

Conclusion:-

Ocular metastases may be inaugural of bronchial cancer, but the overall prognosis is most often pejorative, since there are usually other visceral metastases. However, early diagnosis could be accompanied by an improved life expectancy.



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