

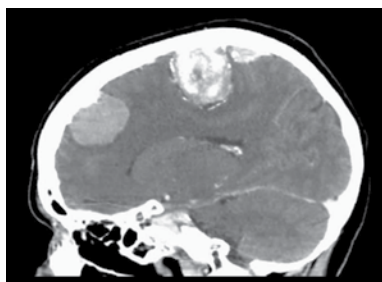
Meningiomas latrogénicos – um caso clínico

latrogenic meningiomas – a case report

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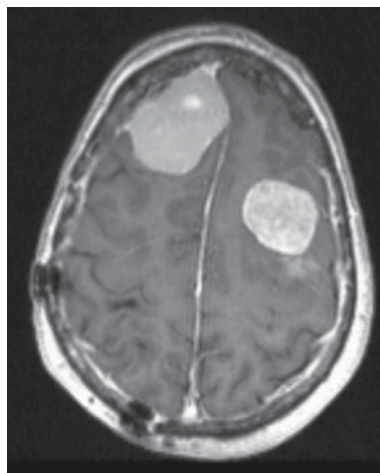
At present, it is acknowledged the association between central nervous system neoplasms and the use of ionizing radiation with diagnostic and/or therapeutic effects. During the first half of the 20th Century, it was thought the nervous system was resistant to ionizing radiation. Before the introduction of griseofulvin in 1960, the treatment of choice for *Tinea capitis* was the scalp irradiation through the Adamson-Keinbock technique.^{1,2,3} The first studies demonstrating an increase of incidence in neoplasms date from 1966.⁴ The latency period after exposure can reach several decades.⁵

The authors describe the case of a female patient, 68 years-old that in 2008 has started complaining of paresthesia, decrease on muscular strength and walking dragging the left foot. The patient had a background of scalp irradiation in childhood for treatment of *Tinea capitis*. Electromyography was carried out having excluded peripheral nervous lesion. She was subject to cranial encephalic CT scan revealing multiple meningiomas reaching both cerebral hemispheres, with dimensions from 1.37cm to 3 cm in diameter, causing a deviation on the middle line and shaping the cerebral parenchyma (Fig.1). The patient was subject to the excision of four meningiomas, from 2009 to 2010. The pathological exam has confirmed a diagnosis of meningioma. At present, she still has



Cranial-encephalic CT scan (sagittal section) with multiple meningiomas, 2008

FIG. 1



NMR (transversal section) showing the remaining meningiomas, 2010.

FIG. 2

two meningiomas (Fig. 2), with improvement of the sensorial-motor complaints in the left lower limb.

The exposure to ionizing radiation increases significantly the risk of meningioma, mainly with high doses and in childhood.⁶ Comparing to spontaneous meningiomas, those induced by radiation are often

multifocal, emerge earlier and present a higher rate of recurrence,¹ reason why a close monitoring is recommended even after excising such lesions.

The authors aim to warn to an etiology that usually is not considered, as well as the need to ponder the risk/benefit in the use of ionizing radiation for diagnosis and therapy. ■

References

1. Umansky F, Shoshan Y, Rosenthal G, Fraifeld S, Spektor S, Radiation-induced meningioma, *Neurosurg Focus* 2008; 24(5):E7.
2. Wiemels J, Wrensch M, Claus EB. Epidemiology and Etiology of Meningioma, *J Neurooncol* 2010; 99(3): 307-314
3. Barnholtz-Sloan JS, Kruchko C., Meningiomas: Causes and Risk Factors, *Neurosurg Focus* 2007; 23(4); E2.
4. Albert RE, Omran AR, Brauer EW, et al. Follow-up Study of Patients Treated by X-Ray for *Tinea capitis*, *Am J Public Health Nations Health* 1966; 56 (12); 2114-2120.
5. Sadelzki S, Modan B, Chetrit A, Freedman L. An iatrogenic Epidemic of Benign Meningioma, *Am J Epidemiol* 2000; 151(3): 266-272.
6. Mack EE, Wilson CB. Meningiomas Induced by High-dose cranial irradiation, *J Neurosurg* 1993; 79(1); 28-31

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