Meningiomas: Are they curable?

All meningiomas, such as fingerprints, nose prints, or a pinna, are different.[1,2] They are different in terms of clinical presenting features, radiological imaging characters, and histological subtleties, and more importantly in the pattern of their behavior and outcome. Behavior-wise meningiomas are as ordinary as a neurofibroma under the skin. Both do not and cannot differ in their essential behavior. The "malignant" fault of a meningioma is its proximity to the brain and spinal cord and its occasional proclivity to ensnare neural structures. Meningioma should be christened as benign microscopically, malignant behaviorally, or rather positionally.

Between the idea (of benignancy)
And the reality (of behavior),
Between the scene (under the microscope)
And the seer (the pathologist)
Falls the shadow (of ambiguity).
(Modified from *The Hallow Men* by T.S. Eliot)

A meningioma is a fibrocellular mass that in a "predetermined" fashion starts somewhere in the meninges and remains "discreetly silent" before being detectable or impinging on the consciousness of the patient. A plethora of theories speculates on its cause, to no avail. The cause/course/cure of any meningioma is not only not known but also unlikely to be known. The advances in treatment have essentially been gadgetry, and in no way conceptual. The course is totally unpredictable, ranging from sheer indolence to accretional aggressiveness. The adverb "silently" is important because most tumor growth occurs before being detected by the clinician or before "disease" affects the patient. Brooke called this phase of tumorigenesis its "discreet silence." As long as space is accorded by the body to the newcomer, it makes no noise; this accounts for fairly large tumor before identification. The growth pattern of the meningioma makes the concept of delay in diagnosis more a myth than a truth. The question of surgically disturbing the silent or "asymptomatic" meningioma can thus be complex. In a way, the meningioma is not causal but is coursal, being an integrated predetermined part of the biological trajectory of the person dictated by time or age. The so-called surgical cure or more truly care, for any tumor anywhere and of any type, is debulking by the swipe of a surgical blade. You can only debulk, for the dream of total removal is one of a mirage. Even if it were removed totally, the next normal meninx can throw a meningiomatous tantrum.

A meningioma
Tells a tale
A normal meninx
Is waiting to tell

All meningiomas can be classified into Good or Bad, only in retrospect. Evaluation after several years of treatment can determine the true colors of the tumors. You can remove the tumor, the whole tumor, and nothing but tumor without removing the tumor diathesis or the ability to form the tumor. Moreover, for any tumor removal, the surgeon must realize the "infinite potential to harm." The surgical philosophy for all tumors, benign or malignant, is to remove the tumor radically and then fold hands and wait for it to recur. The term "radical resection" has to be defined and clearly understood. One must realize that "once a meningioma always a meningioma." The aim of surgery can never be "cure" of the meningioma. Tumors are a "spatial problem, demanding spatial solutions." The surgeon's role is to respect the space-seeking faculty of the tumor, and hence attempting to reduce the bulk and/or increase the space for the tumor to be. Surgery can be summarized to be "space-creating solution;" for a "space-occupying lesion," albeit accompanied by the more meaningful debulking of the tumor. The success of surgery will be maximum space

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creation, maximum bulk removal, and safe outcome. Any complication or neurological deficit is related to inadequate understanding and evaluation or less than perfect execution of operation. The difficult terrain of a meningioma makes the likelihood of complications higher. The recurrences depend more on the growth pattern of the tumor. The rate of recurrence of a meningioma is independent of the extent of tumor resection. The radicality of resection will also depend on the aggression and extensions of the meningioma. More extensive the presence of the tumor, more difficult is the resection and the likelihood of recurrence is higher. More circumscribed meningiomas are easier to remove and the long-term outcome is better. The best imaging techniques and the most evolved operative microscopes do not touch the basic character of a neuraxial tumor. There lies a message for the neurosurgeon: "Less is more." Any operative or cytolytic procedure that is offered to the patient is pure palliation, a treatment concept that has not changed in its limitation over the past 120 years.

The aim of surgery for recurrent meningiomas remains the same. Create maximal space and debulk and then again wait for the tumor to recur. The possible difficulties during surgery make the issues more challenging for the surgeon. It is therefore mandatory for the surgeon to assess the lesion, its location, and the difficulties that can be associated with surgery in a recurrence situation and then take appropriate decision. It is always right to treat recurrent meningiomas surgically and resort to radiotherapy only when the knife cannot be wielded. Surgery *per se* is lesion far and no further unless it hurts vessels/nerves/brain on its way. Radiotherapy has necessarily a field impact, charring not only the tumor but also many a vessel or nerve, and for that reason, is to be deployed only under compulsion. Chemotherapy has no role, for a meningioma is too dull to be affected by the best chemotherapy. A good neurosurgeon is one who knows when NOT to operate. A good meningioma surgeon is one who knows when to stop the resection and when there is a risk of damage to a nerve or a blood vessel.

Much as a normal diploid dividing cell is potentially malignant so is any part of any normal meninx potentially a meningioma, meningioendothelioma, meningiosarcoma, all mercifully rare in a crescendo order. Most meningiomas, "benign" to the microscope, make noise late in life and lend themselves to partial or "total" surgical ablation, promising to come back the way it did to start with. Each meningioma is unique, and unamenable to any genetic analysis, prevention, chemotherapy, or radiation. It is best lived with ablated when diseasing and reablated when it recurs to disease again. It is not the treatment but the cellular behavior that decides the outcome. Surgical philosophy for all tumors, benign or malignant, is to remove the tumor radically and fold hands and wait for it to recur. From a surgeon's perspective, it appears that surgery is the only practical fact while the remaining treatment forms are fictional at best. The answer to treatment of meningiomas may be safe resection to obtain a symptom-free time for the patient, an act that can be repeated when mandatory.

Atul Goel, Late. Manu Kothari[1]

Departments of Neurosurgery and [1]Anatomy, K.E.M. Hospital and Seth G.S. Medical College, Parel, Mumbai, Maharashtra, India

Address for correspondence: Prof. Atul Goel, Department of Neurosurgery, K.E.M. Hospital and Seth G.S. Medical College, Parel, Mumbai - 400 012, Maharashtra, India.
E-mail: atulgoel62@hotmail.com

References

1. Goel A, Kothari M. Editorial: Cavernous sinus meningiomas. J Neurosurg 2010;113:1085.
2. Goel A, Kothari M. Method in madness of a meningioma. Commentary to Li D, Hao SY, Wang L, Tang J, Xiao XR, Jia GJ, Wu Z, Zhang LW, Zhang JT. Recurrent petroclival meningiomas: Clinical characteristics, management and outcome. Neurosurg Rev 2015;38:71-86.