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Intramedullary Spinal Cord Tumors

Introduction by Fred J. Epstein, M.D.

Over the past 10 or 15 years, there has been a resurgence of interest in surgery for intramedullary spinal cord tumors. This is a result of enormous progress in the development of imaging systems as well as the evolution of operating room instrumentation. In addition, rapid progress is now being made in monitoring spinal cord function during surgery, and it is clearly as a result of an integration of all these areas that definitive surgery for some intramedullary tumors is now available.

Certainly, this is a very broad subject and in this particular section, only a few specific tumors are discussed. Nevertheless, I believe that a number of the principles are applicable to quite a large spectrum of tumors that occur in the spinal cord, and it is hoped that the reader will be stimulated to pay close attention to what will be described in the surgery of these tumors in other publications in the future.

It should be emphasized again that this is not intended as a comprehensive review but rather as an introduction to a few specific problems related to intramedullary tumors. The report on intraoperative monitoring is one that should be looked at particularly carefully. Although these techniques are not universally available and in a scientific sense have not yet been proven to be of consistent value, there can be little question that in a relatively finite period of time, they will become "state of the art" in spinal cord and brainstem surgery as well as in many other procedures as well. This particular report should be viewed as one that shares a very early experience and certainly may be altered in the future as new realities become manifest.

With regard to the discussion of ependymomas, it is my perspective that the most important "message" is that these are tumors that are surgically curable, are not responsive to radiation therapy, and for which total extirpation is the only approach that offers any realistic possibility of normal longevity and function. It is important that radiation therapy and chemotherapy be relegated to history, at least in the primary treatment of these neoplasms.

Certainly the discussion of metastatic intramedullary tumors is most interesting, not so much for the specifics of the cases that are reported but rather for what may be achievable in the future in this group of patients with very difficult tumors to treat. It seems that debulking a metastatic intramedullary tumor may offer significant remission in terms of neurological disability and improve quality of life for whatever the patient survival time may be.

Finally, the report on primary intramedullary melanoma is one that emphasizes how unusual this condition is and that it is very important to recognize it as a tumor originating within the spinal cord and not metastasizing there. In the past, it has been assumed that these are metastatic tumors and even in the absence of discovering a primary site, most physicians have been convinced that this is a result of not
being successful in localizing the primary site not its absence. The importance of this paper is that it defines very clearly that this tumor may be a rare primary tumor and obviously a difficult clinical problem.

From an overall perspective, I believe this is an interesting collection of papers that "revisits" intramedullary surgery in different pathological settings. Hopefully, this field will expand rapidly in coming years as more neurosurgeons become informed about the various pathological entities, and with adequate support services, become confident about performing the requisite surgical procedures.