

# Implantable polymeric BCNU as an adjunct to surgery for metastatic intracranial disease

Timothy C. Ryken MD MS FACS



## Introduction

This study retrospectively evaluated the safety and response of surgical resection with implantable polymeric chemotherapy (BCNU) in patients with metastatic intracranial disease.

## Methods

The records of patients undergoing resective surgery for metastatic intracranial disease combined with implantation of polymeric BCNU chemotherapy were retrospectively reviewed. Complications and response were evaluated.

## Results

One hundred and sixty cases of craniotomy for tumor utilizing BCNU implantable chemotherapy were performed by the author at the University of Iowa between (1998-2009) including 23 cases performed in 20 patients for metastatic intracranial disease. Three patients underwent a subsequent second craniotomy in a different location.

The series included 14 females (mean 53 years, range 37 to 78) and 6 males (mean 61 years, range 52 to 71).

The site of primary was as follows: lung (10), breast (4), colon (1), unknown primary (2).

Patients undergoing resection plus implantable chemotherapy following whole brain radiotherapy (5 patients) or following stereotactic radiosurgery (5 patients) were the most common.

Two patients (10%) had local progression at 2 and 8 months respectively.

Complications included three cerebrospinal fluid leaks with associated complications requiring reoperations (15%), all following preoperative radiotherapy and 3 patients (15%) with thromboembolic episodes.

## Conclusions

In this challenging population, local implantable chemotherapy appears relatively safe and a reasonable consideration as a surgical adjunct.

## Learning Objectives

At the conclusion the participant will be able to discuss the role of implantable chemotherapy as an adjunct to resection in the treatment of metastatic central nervous system disease.

## DEFAULT POSTER