Research Paper: Surgical Protocol and Outcome of 60 Cases With Intracranial Aneurysm

Babak Alijani[1,2], **Mohamadreza Emamhadi**[2], **Shahrokh Yosefzadeh-Chabok**[3], **Seyfollah Jafari**[4], **Amin Naseri**[4*]

1. Associate Professor of Neurosurgery, Guilan Road Trauma Research Center, Department of Neurosurgery, Poursina Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran
2. Associate Professor of Neurosurgery, Department of Neurosurgery, Poursina Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran
3. Professor of Neurosurgery, Guilan Road Trauma Research Center, Neuroscience Research Center, Department of Neurosurgery, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran
4. Resident of Neurosurgery, Department of Neurosurgery, Poursina Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran

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ABSTRACT

Background and Aim: This study aimed to present the results of early and delayed operation on patients with ruptured brain aneurysms. In addition to comparing the results and rates of morbidity and mortality in the surgical procedure and identifying the effective factors, this study aimed to provide methods to improve the treatment of brain aneurysm.

Methods and Materials/Patients: This was a retrospective study on 60 patients with a definitive diagnosis of brain aneurysm admitted to Neurosurgery Ward of Poursina Hospital, Rasht, Iran from 2009 to 2013.

Results: 7(11.7%) patients on the first 3 days and 37(61.7%) patients on the days 4-14 and 16(26.7%) after 2 weeks and selectively underwent surgery. In total, 11.7% of patients died and 15% developed severe complications. In the group underwent surgery on the first 3 days, 2(28.5%) patients died and 2 experienced severe complications. In the second group (in 4-14 days), 4(10.8%) patients died and 5(13.5%) suffered from severe complications, and in the group (16 patients) with delayed surgeries, 1(6.2%) patient died and 2(12.5%) suffered from severe complications. Neurological grading and operation time were important factors in complications and mortality of patients.

Conclusion: This study showed that Hunt and Hess neurological grading score has a direct relationship with increased morbidity and mortality rates, while delayed operation is associated with a reduction in morbidity and mortality. Given the complications of early aneurysm surgery (during the first 3 days) compared with delayed surgery, and also most of these patients die due to vasospasm or recurrent hemorrhage before the onset of a delayed phase, performing early surgery in these patients requires further evaluation. According to this study, the reduction of each episode of occlusion with temporary clipping will result in fewer complications.

*** Corresponding Author:**
Amin Naseri, Resident of Neurosurgery
Address: *Department of Neurosurgery, Poursina Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran*
Tel: *+98 (13) 33322444*
E-mail: *dr.amin_ms84@yahoo.com*