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A034 Effect of Comorbidities on the Outcome of Patients with Aneurysmal SAH: A Prospective Observational Study

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Introduction: Subarachnoid hemorrhage (SAH) carries a high mortality of 30 to 40%. Among survivors, 40 to 50% suffer disability and cognitive decline. Comorbidities can have a contribution in the disease process. With this background, we hypothesize that comorbidities in a patient with aneurysmal SAH can influence the course of disease and thereby the neurological outcome.

Methodology/Description: This prospective observational study was commenced after ethics committee clearance and written informed consent. We enrolled 89 (59 females and 30 males) consecutive patients of aneurysmal SAH, scheduled for clipping/coiling from July 2016 to October 2017. Patients' comorbidities were recorded and outcome followed in postoperative period using MRS at discharge and MRS and GOS at 1 month after discharge. Analysis was done using chi square test.

Results: In patients undergoing clipping, smoking was associated with worse outcome (0.01). Smoking and alcohol intake was associated with increased incidence of vasospasm, infarct, and rebleed ([0.02 and 0.04], [0.001 and 0.003], [0.02 and 0.04], respectively). In patients undergoing coiling, CAD was associated with worse outcome (0.02), increased incidence of rebleed (0.007), and hydrocephalus (0.03). Smoking, alcohol intake, and DM were associated with increased incidence of vasospasm (0.014, 0.04, and 0.04, respectively). Smoking was also associated with increased incidence of rebleed (0.005). Hypertension, thyroid dysfunction, TB, and joint disease were not associated with worse outcome or increased incidence of complications.

Conclusion: Various comorbidities, including DM, CAD, smoking, and alcohol intake, were associated with increased risk of perioperative complications in patients after SAH. Other comorbidities, such as hypertension, thyroid dysfunction, TB, and joint disease, neither affect outcome nor increase risk of complications.

Keywords: SAH, CAD, DM, MRS

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A035 Anesthetic Approach to a Patient with Intracranial Aneurysm, Severe Ischemic Heart Disease, and Poor Left Ventricular Function

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Introduction: The incidence of a cerebral aneurysm in general population is 0.5 to 5%. The annual incidence of rupture of an asymptomatic aneurysm has been estimated at 7 to 10 cases per 1 lakh population. Rupture results in subarachnoid hemorrhage causing death or permanent disability in approximately 50% of patients. Prevalence of ischemic heart disease (IHD) is 7.4 to 14%. Together, IHD and stroke are responsible for more than one-fifth (21.1%) of all deaths and one-tenth of the years of life lost in India. Myocardial infarction within 6 months of noncardiac surgery was found to be an independent risk factor for perioperative stroke. A condition with intracranial aneurysm and IHD is a situation of dilemma to decide which one to be treated first; however, existing literature is limited in such cases. We are presenting this case report to discuss the approach and anesthetic considerations for such a patient.

Methodology/Description: A 62-year-old male patient, known case of hypertension, diabetes mellitus, and past history of cerebrovascular accident presented with left arm pain, episode of transient ischemic attack, pedal edema, and exertional dyspnea. On neurological and cardiac evaluation, he was diagnosed with unruptured left middle cerebral artery aneurysm measuring 4 × 4 mm with a neck width of 3 mm and triple vessel disease with severe left ventricular dysfunction with ejection fraction of 20%. Considering the risk associated with general anesthesia for aneurysm coiling versus risk of rupture, we decided to go ahead with off-pump coronary artery bypass grafting (CABG) first to prevent cardiopulmonary bypass-related coagulation abnormalities. Aneurysm is managed conservatively in view of size and location. Management of this case is a challenge for anesthesiologists to keep a balance of hemodynamics to prevent the rupture of intracranial aneurysm on one side and maintaining coronary perfusion pressures to prevent perioperative myocardial infarction on the other side.

Conclusion: Off-pump coronary artery bypass grafting is a good option for preoperative optimization in a patient scheduled for intracranial aneurysm surgery with poor left ventricular dysfunction.

Keywords: intracranial aneurysm, ischemic heart disease, off-pump coronary artery bypass grafting

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