I. Subarachnoid Haemorrhage

- **Definition**: Subarachnoid haemorrhage (SAH) is the presence of blood in the subarachnoid space, typically due to a ruptured aneurysm or arteriovenous malformation.

- **Incidence**: Subarachnoid haemorrhage occurs in approximately 15-20 per 100,000 population per year.

- **Risk Factors**: Risk factors for subarachnoid haemorrhage include age, gender (men are more affected), hypertension, and family history of aneurysm.

- **Presentation**: The most common initial symptom is sudden, severe headache, which can be associated with other symptoms such as nausea, vomiting, and photophobia.

- **Diagnosis**: Radiographic imaging such as CT or MRI is used to confirm the diagnosis of subarachnoid haemorrhage.

- **Management**: Management includes treating the underlying cause, blood pressure control, and monitoring for complications such as vasospasm.

II. Vascular Spasm

- **Definition**: Vasospasm is a narrowing of intracranial arteries that occurs in the hours to days after subarachnoid haemorrhage.

- **Risk Factors**: Risk factors for vasospasm include the severity of subarachnoid haemorrhage, the presence of aneurysms, and the use of certain medications.

- **Diagnosis**: Vasospasm is typically diagnosed using transcranial Doppler ultrasound.

- **Management**: Management includes therapies such as intravenous vasodilators and surgical clipping.

III. Neurosurgical Complications

- **Definition**: Neurosurgical complications can occur after subarachnoid haemorrhage and include hydrocephalus, rebleeding, and infection.

- **Diagnosis**: Diagnosis is typically made using imaging studies such as CT or MRI.

- **Management**: Management includes treatment with medications, surgery, or other interventions.

IV. Prognosis

- **Definition**: Prognosis in subarachnoid haemorrhage is multifactorial and depends on factors such as the patient’s age, the size of the aneurysm, and the presence of complications.

- **Outcomes**: Outcomes vary depending on the grade of subarachnoid haemorrhage, with grades I and II having better outcomes than grades III and IV.

- **Survival Rates**: Survival rates for subarachnoid haemorrhage are approximately 70% for grade I, 60% for grade II, 50% for grade III, and 40% for grade IV.