CLINICAL PROFILE OF PERIOPERATIVE STROKE IN PATIENTS UNDERGOING CABG PROCEDURE IN A TERTIARY CARDIAC CARE CENTRE.

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AIMS & OBJECTIVES: To study the clinical profile of perioperative stroke in patients undergoing CABG procedure.

MATERIALS AND METHODS :

- **Study design:** This is a descriptive study which includes retrospective and prospective analysis of patients who undergo CABG procedure. The study duration was 2 years. Patient demographics, comorbid conditions, timing of stroke, procedure characteristics, and type of anesthesia information were extracted.

- **Study definition:**
  - Intraoperative stroke: Stroke which occurs during surgery or before awakening from anaesthesia
  - Early perioperative: Within first 7 days of surgery

- **Inclusion criteria:** Patients aged >18years undergoing CABG procedure who develop new onset of perioperative stroke will be included.
- **Exclusion Criteria:** Patients not willing to give consent.

Results:

- A total of 42 periopertive stroke patients were analysed during the study. The incidence of perioperative stroke in CABG procedure is 0.68%.
- The age distribution between group 46-75 years were 78.6%
- About 14 (57.12 %) stroke subjects had TVD. 15/42 (35.7%) patients had carotid stenosis. 5 (11.9%) patients with common carotid artery stenosis and 7(16.6%) patients had internal carotid artery stenosis.
- The early perioperative strokes were 52.4% during first 48 hrs of surgery and 4.8% cases of perioperative strokes were during day 6 and day 7.
- 17 (40.4%) of patients had multiple territory infarcts likely embolic source as the cause of perioperative stroke. 15 (35.7%) had infarcts characteristics of large artery stenosis.
- About 1/3rd of the perioperative stroke were due to large artery atherosclerosis representing watershed infarcts in imaging.
- All patients with previous carotid stenosis developed watershed infarcts due to large artery stenosis.

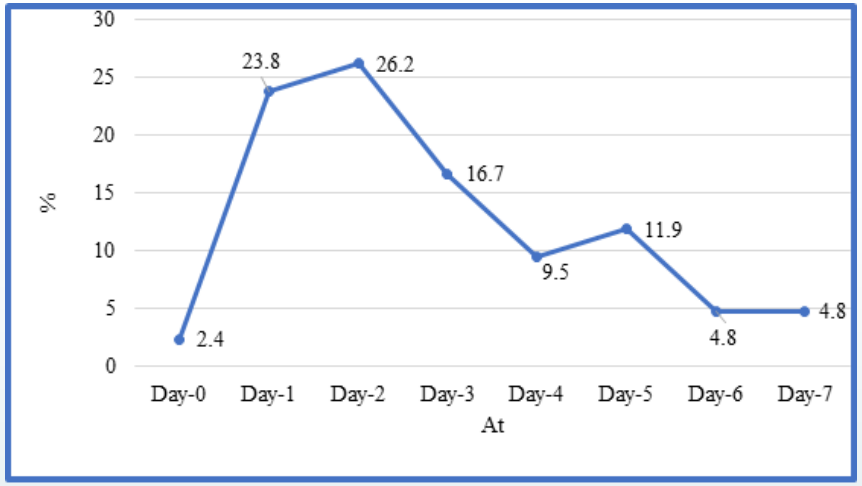

Figure 1: Onset of stroke after CABG procedure

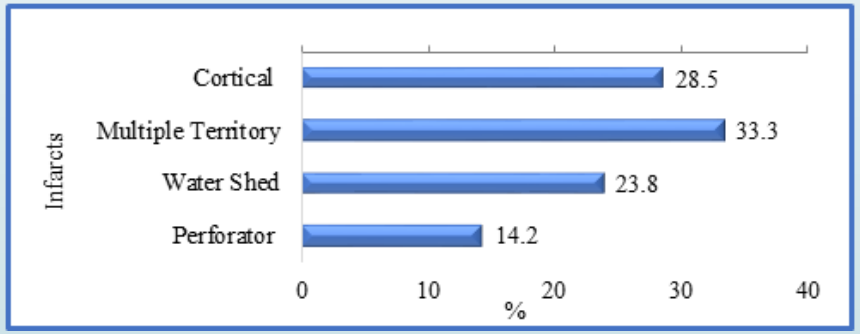

Figure 2: Pattern of stroke

Conclusion:

- This descriptive study aims to enhance the understanding of the clinical characteristics of established risk factors, as well as the radiological features associated with perioperative stroke.
- In cases where the aetiology of perioperative stroke remained undetermined, potential contributors may include intraoperative manipulation of the aorta, underlying aortic arch pathology, and concurrent, unaddressed carotid artery stenosis.
- The presence of extracranial (ECAD) and intracranial atherosclerotic disease (ICAD), often presenting with watershed infarcts, is frequently observed in large artery atherosclerosis.
- These findings highlight the need to reassess the utility of routine carotid artery screening prior to coronary artery bypass grafting (CABG).
- Meticulous preoperative evaluation, along with prompt identification and management of modifiable risk factors, may play a critical role in reducing the incidence of perioperative stroke.