Transcatheter Aortic Valve Implantation (TAVI) Complications Case Reports accepts articles focusing on the recognition, management, and prevention of complications associated with TAVI procedures. Submissions are welcome in the form of case reports, case series, video case reports, brief communications, commentaries, and editorials. The goal of the open-access, peer-reviewed **Case Reports and Case Series in Cardiology Journal** is to publish high-impact, clinically relevant reports that improve patient outcomes in structural heart interventions.

TAVI has revolutionized the management of severe aortic stenosis, especially in high-risk and elderly patients who are not suitable for surgical valve replacement. Despite its minimally invasive nature and growing success, TAVI is associated with a range of procedural and post-procedural complications that require prompt recognition and expert management.

Common TAVI Complications

Complications related to TAVI can occur during or after the procedure and may include:

- **Vascular Complications:** Bleeding, arterial dissection, perforation, or access-site complications
- **Paravalvular Leak (PVL):** Incomplete sealing of the prosthetic valve leading to regurgitation
- **Conduction Disturbances:** Heart block requiring permanent pacemaker implantation
- **Stroke and Embolic Events:** Due to embolization of debris during valve deployment
- **Valve Malposition or Migration:** Incorrect placement of the prosthetic valve
- **Coronary Obstruction:** Rare but life-threatening complication

Risk Factors and Patient Considerations

Certain factors increase the risk of complications during TAVI:

- Advanced age and frailty
- Severe vascular disease
- Complex aortic root anatomy
- Heavy calcification of the aortic valve
- Pre-existing conduction abnormalities

Proper patient selection and pre-procedural imaging play a critical role in minimizing risks.

Clinical Presentation

The clinical presentation of TAVI complications varies depending on the type and severity:

- Hypotension or hemodynamic instability
- Chest pain or dyspnea
- Neurological deficits (in case of stroke)
- Arrhythmias or heart block
- Signs of heart failure

Early detection is essential for effective intervention.

Diagnostic Approaches

Diagnosis of TAVI-related complications may involve:

- Echocardiography (transthoracic and transesophageal)
- Fluoroscopy during the procedure
- CT angiography for anatomical assessment
- Electrocardiogram (ECG) monitoring
- Hemodynamic assessment

Management Strategies

Management depends on the type of complication:

Immediate Interventions:

- Vascular repair or closure devices for access complications
- Balloon post-dilation for paravalvular leak
- Valve repositioning or implantation of a second valve
- Emergency coronary intervention in case of obstruction

Medical Management:

- Antiplatelet and anticoagulation therapy
- Management of heart failure symptoms
- Treatment of arrhythmias

Device-Based and Surgical Options:

- Permanent pacemaker implantation for conduction disturbances
- Surgical intervention in severe or unmanageable complications

Complications and Outcomes

If not managed appropriately, TAVI complications can lead to:

- Increased morbidity and mortality
- Stroke and neurological impairment
- Persistent heart failure
- Need for repeat intervention

Role of Case Reports

This section encourages submission of case reports that highlight:

- Rare and complex TAVI complications
- Innovative management techniques
- Role of imaging in complication detection
- Multidisciplinary approaches in management
- Long-term follow-up and patient outcomes

These case reports contribute significantly to improving procedural safety and advancing structural heart interventions.

Manuscript Submission

Authors are requested to submit their manuscript by using Online Manuscript Submission Portal: https://www.casereportsincardiology.org/submit.html (or) also invited to submit through the Journal E-mail Id: editor@casereportsincardiology.org.