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375

### Safety and Feasibility of Alternate Access TAVI in a Single Centre

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**Background:** Transcatheter aortic valve implantation (TAVI) via transfemoral access has become the standard of care in the treatment of aortic stenosis in patients at elevated risk of open surgery. When transfemoral access is not feasible, alternative access TAVI may be considered; however, recent guideline statements have questioned the role of this procedure, citing increased risk of complications and mortality.

**Methods:** We retrospectively analysed the outcomes of patients undergoing alternate access TAVI from February 2015 to February 2021 at the Prince Charles Hospital.

**Results:** Alternate access TAVI was performed on 119 patients, of which 64 (53.8%) had transaxillary access, 43 (36.1%) had transaortic access and 12 (10%) had transapical access. 59 of the patients were male, with a mean age of 79±18 years. 30-day echocardiography was available in 110 patients. Device success was achieved in 88%. 30-day mortality occurred in 3 patients (2.5%), with 2 deaths related to procedural bleeding. 7 patients had moderate or greater aortic valve regurgitation and the average aortic valve mean gradient was 11±6 mmHg on 30-day follow-up. The number of patients with Type 1 and Type 2 overt bleeding were 5 and 5, respectively, by VARC 3 criteria, and 3 patients (2.5%) had mild (NIHSS of 0–5) acute ischaemic strokes.

**Conclusion:** This study demonstrates that contemporary alternate access TAVI has acceptable early outcomes in a high-risk/inoperable cohort. As such, alternate access TAVI is an important treatment option that should be considered by the multi-disciplinary heart team with shared decision making.

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376

### Severe Coronary Vasospasm in the Context of Infection With the Omicron Variant of SARS-CoV-2

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**Background:** Cardiac complications in the setting of COVID-19 are well recognised; however, reports of vasospasm are rare. We present a case of life-threatening coronary vasospasm in the setting of infection with the Omicron BA.1 variant of SARS-CoV-2.

**Case Presentation:** In December 2021 during the Omicron surge in Sydney, NSW, a 51-year-old male presented with recurrent central chest pain over the preceding 12 hours. He had a 2-day history of a non-productive cough and fevers but no known COVID exposures. His past medical history included hypercholesterolaemia, but no risk factors for severe COVID disease. A further episode of chest pain in the emergency department was associated with bradycardia (HR 40 bpm) and hypotension (SBP 70 mmHg). Electrocardiograms demonstrated junctional bradycardia with 3 mm of inferior ST-segment elevation. Emergent coronary angiography revealed moderate diffuse left coronary obstruction and critical diffuse right coronary obstruction. The angiographic (and ECG) changes resolved completely with administration of intracoronary glyceryl trinitrate, indicative of vasospasm. Admission rapid nasopharyngeal PCR returned positive for SARS-CoV-2 and subsequent whole genome sequencing confirmed the Omicron BA.1 variant. Nifedipine was commenced, and he had no further events during a 3-day admission. Serial troponin T and transthoracic echocardiogram were normal. COVID-specific therapy was not required. He remained asymptomatic at follow-up and CTCA 1 month later confirmed normal coronary arteries with a coronary calcium score of zero.

**Discussion:** Coronary vasospasm in the setting of COVID-19 has been rarely reported. Life-threatening coronary spasm may be an under-recognised entity, potentially responsible for sudden death in patients with otherwise less severe COVID.

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377

### Sex and Age-Adjusted Temporal Trends in Hospitalisation Rates Following Ischaemic Strokes in New South Wales, Australia From 2002 to 2017

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**Background:** Ischaemic strokes (IS) represent the largest group of stroke admissions in New South Wales (NSW), Australia. Temporal trends on admission rates especially involving time-period after 2013 are unclear.

**Methods:** All NSW residents admitted with first-ever primary diagnosis of IS from 2002 to 2017 were identified from databases held by the Centre for Health Record Linkage. Admission rates were based on persons and adjusted for population size by sex, age groups in decade and calendar-year.

**Results:** There were 99,145 patients (55.6% males) admitted for IS (mean±SD: 6,197±369 patients per annum). Overall age-adjusted mean admission rates were higher for males than females (197.8±33.4 vs 160.1±28.4 admissions per 100,000 persons per annum, respectively). Admission rates declined for both sexes between 2002 and 2017 (male: