

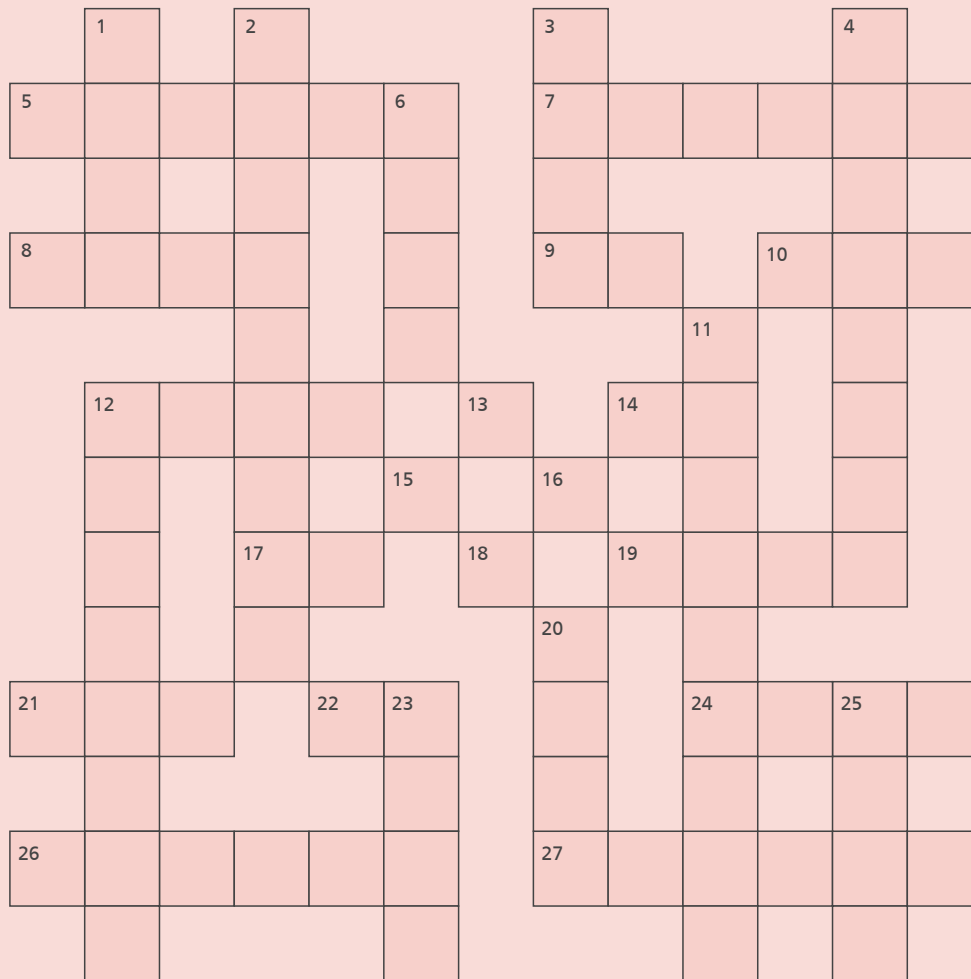
TRIVIA

ECG Crossword

Crosswords for this issue shared by:

Dr Bipinkumar V Daxini

Senior Consultant - Cardiology, Fortis Hospital, Mulund



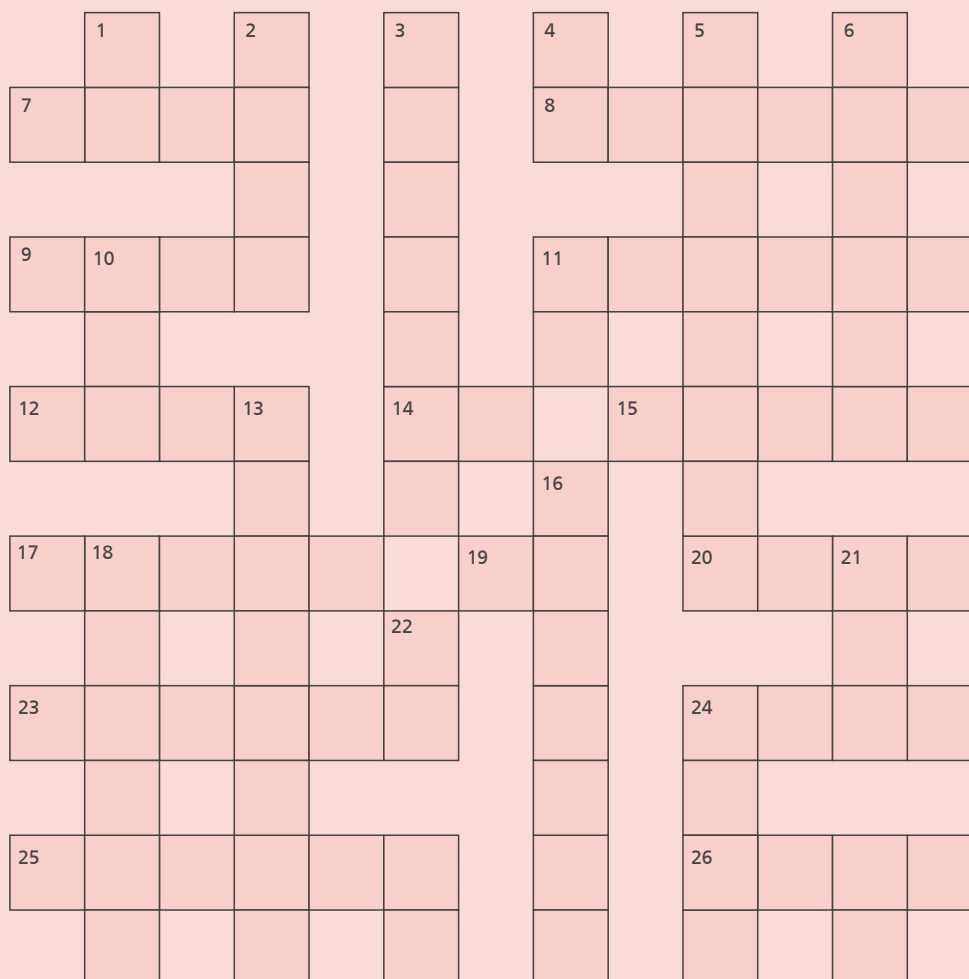
DOWN

1. The sinus _____ initiates the heart beat (4)
2. Invented first practical electrocardiogram in 1903 (9)
3. A device that performs cardioversion, defibrillation & pacing of the heart (4)
4. Electrical interferences that may distort normal ecg tracing (8)
6. The vector sum of amplitude of all 3 standard limb leads is equal to _____ (4)
11. Electrical conduction pathway between atria and the ventricle in WPW syndrome (9)
12. RBBB with coved ST elevation in V1 to V3 is referred to as Brugada _____ (8)
15. A negative deflection preceding an R wave (1)
16. The wave due to ventricular repolarisation (1)
20. Electrical mapping of heart is done by _____ polar catheter (4)
23. In Wellens syndrome T waves are _____ and symmetrically inverted (4)
25. Superimposition of an ectopic beat on preceding T wave likely to initiate ventricular tachycardia (1,2,1)

ACROSS

5. The second degree AV blocks are named after him (6)
7. Flow of current from damaged to normal area of heart is called current of _____ (6)
8. Accessory conduction pathway between atria and ventricle (4)
9. Cardioversion that is life-saving in terminating ventricular fibrillation, abr (2)
10. The bundle that transmits electrical impulses from AV node to ventricles (3)
12. AVNRT occurs due to reentrant circuit involving _____ and fast pathways in AV node. (4)
13. The wave of atrial depolarization (1)
14. This electrical interference that is displayed as a thick baseline on ecg waveform (2)
17. Study to map the electrical activity of the heart, abr (2)
18. The wave due to repolarisation of purkinje fibers (1)
19. RF ablation is the _____ treatment for AVNRT (4)
21. The ecg complex of ventricular depolarization (3)
22. Umbrella term for different causes of sudden cardiac arrest in young people, abr (2)
24. Electrophysiological parameter prolonged in sick sinus syndrome (4)
26. Right atrium receives _____ blood (6)
27. White coats worn by doctors (6)

ECHO Crossword



DOWN

7. Pulmonary-systemic flow ratio (4)
8. Its asymmetric hypertrophy occurs in HOCM (6)
9. One of the 4 pulmonary veins draining into left atrium (4)
11. Dobutamine _____ echo is used for assessing myocardial ischemia (6)
12. Plural of axis (4)
14. Stroke volume, abr (2)
15. _____ repetition frequency is the number of pulses/sec (5)
17. Echocardiography uses high frequency sound _____ (5)
19. Aortic regurgitation, abr (2)
20. Distance between anterior mitral valve peak & the ventricular septum on M-mode tracing (4)
23. In valvular stenosis, gradients _____ the valve is increased (6)
24. The act enacted to stop female feticides (4)
25. On echocardiography aortic valve closure resembles an _____ down Mercedes benz sign (6)
26. Basic echo view showing all 4 chambers (4)

ACROSS

1. Blood pressure, abr (2)
2. Results in shunt from aorta to other heart chambers mostly right atrium, abr (4)
3. Doppler term which specifies maximum velocity that can be recorded without aliasing (7)
4. Aortic stenosis, abr (2)
5. Synthetic _____ echo imaging is better than phased array in studying anatomical details (8)
6. Assists doctors in patients care (6)
10. Short axis view, abr (3)
11. Sinus node, abr (2)
13. Rheumatic affection may cause valvular regurgitation or _____ (8)
16. Its Piezoelectric effect is the basis of echocardiography (7)
18. Other name of Bland-White-Garland Syndrome (6)
21. Sudden unexpected death due to cardiac arrest (3)
22. Narrowing of mitral valve, abr (2)
24. Basic parasternal echo view (4)



ONCO CONNECT

AFP Producing Endometrial Carcinoma : A Rare Case : Dilemma in Diagnosis and Management



Dr Rama Joshi
 Principal Director - HOD Department of Gynecologic Oncology and Robotic Fortis Memorial Research Institute, Gurugram

Presenter : Dr Mala Sinha, DrNB Trainee

A 70 years old female presented with post menopausal bleeding, evaluated for the same and Clinical diagnosis of

advanced stage carcinoma ovary/carcinoma endometrium was made. Her CA125 was 105.8 and AFP was 4296ng/ml. Radiological imaging and upper GI endoscopy and colonoscopy did not reveal evidence of any primary in the liver and gastrointestinal tract. Ascitic fluid reported as mucinous adenocarcinoma with intestinal differentiation, primary of ovarian origin. Primary cytoreductive surgery with type II hysterectomy, excision of bilateral ovarian masses, fallopian tubes, diseased pelvic and abdominal peritonectomy including bilateral undersurface diaphragm peritonectomy, total omentectomy, appendectomy, excision of mesenteric disease deposits and bilateral pelvic lymphadenectomy done. Intraoperative PCI was 14. Optimal status with disease of

<2.5mm scattered over bowel serosa and its mesentery at places as residual. Post operatively her recovery was good. There was pathological diagnostic dilemma and final histopathology of AFP producing endometrial carcinoma with fetal gut like and hepatoid morphology, FIGO stage IV B was made.

Point of Interest

These are rare tumors and standard line of adjuvant chemotherapy is not defined as per guidelines.

Question to the Board

Opinion regarding adjuvant and systemic chemotherapy.

Board Opinion

Chemotherapy_FOLFOX

Endometrial Carcinoma in Young Nulligravida: Genetic Counselling & Fertility Preservation

Dr Rama Joshi
 Principal Director - HOD Department of Gynecologic Oncology, Fortis Memorial Research Institute, Gurugram

**Presenter :
 Dr Tarini Sonwani, DrNB Trainee**

A 26 years old nulligravida presented with complaint of heavy menstrual bleeding for one year and was evaluated for the same. She underwent D&C twice (outside) and the histopathology revealed endometrioid carcinoma, grade 2 (IHC- ER/PR+, Her2-, Ki67-50%, p53-wild type in most of the glands and mutant in few glands). Clinical

examination and imaging showed uterus confined disease with 50% myometrial invasion. She was obese and had no medical comorbidities and no family history of malignancy. Serum Ca 125 was 104.5.

Point of Interest

Endometrial carcinoma diagnosed in very young patient, where fertility is of concern.

Question to the Board

As the disease is clinically IB endometrioid carcinoma endometrium, can patient be given the advantage of oocyte preservation? As patient wish to have

biological child.

Board Opinion

Germline testing for Lynch syndrome, when negative can opt for oocyte and embryo preservation followed by definitive treatment.



CLINICAL RESEARCH

Important Research Projects at Fortis

A Global, Multicenter, Prospective, Real World Observational Study For Left Main Disease Treatment, Iris - Main Trial

Dr Sanjay Kumar
 Director and HOD - Cardiology
 Fortis Escorts Hospital, Faridabad

Introduction

Coronary artery bypass grafting (CABG) is the standard procedure for patients with unprotected LMCA disease. However, because of anatomic accessibility and other characteristics, percutaneous coronary intervention (PCI) for LMCA disease was attractive to the interventional cardiologist.

However, recent improvements in interventional techniques and adjunctive pharmacology have challenged the conventional wisdom that significant LMCA stenoses should be treated surgically. The

introduction of coronary stenting has led to a re-evaluation of the role of PCI as a viable treatment option for LMCA disease, and the widespread availability of drug-eluting stents (DES), together with improved stenting techniques, has lowered the threshold for use of PCI, instead of CABG, in patients with LMCA disease.

Total number of sites in Asian-pacific region - 26

Total Sample size from India - 156

Dr Sanjay Kumar from FHL Faridabad has successfully enrolled 41 patients.

Primary Objective

To observe clinical courses for long-term in patients with unprotected LMCA disease and to evaluate

comparative results of medical treatment, coronary stenting with drug-eluting stents, and CABG for the treatment of an unprotected LMCA stenosis in the "real world" daily practice.

Potential Benefits

This registry outcome will be used to improve knowledge and treatment of LMCA disease and this knowledge may benefit patients with this disease in the future.

Opinion of PI

With newer generation DES & availability of IVUS/OCT. Left main bifurcation stenting is a feasible option even with higher syntax scores.

A Real-world, Prospective, Multicenter, Observational, Investigator-Initiated Study to Evaluate the Outcomes in Patients Undergoing Percutaneous Coronary Intervention (PCI) with Crush Technique as Compared to Culotte Technique for Coronary Bifurcation Lesions

Dr Shuvan Ray
 Director - Interventional Cardiology/
 Transcatheter Aortic Valve Implantation
 Fortis Anandapur, Kolkata

Introduction

Coronary bifurcation lesions (CBLs) is one of the most complex lesion subsets, and it is still a challenging area in the field of percutaneous coronary interventions (PCIs). Culotte, mini-Culotte, mini-crush, DK-Crush, T-stent and Protrusion (TAP) are currently the most used double stenting techniques. Crush or Culotte is technically complicated and the treatment results may be affected by many factors such as stenting technique per se, operator's

experience, device's performance, cardiovascular imaging evaluation, patients' characteristics, and so on.

Total Number of Sites in India - 8

Total Sample size from India - 156

Dr Shuvan Ray from Fortis Anandapur has successfully enrolled 26 patients

Study Phase- Real-World Observational Exploratory study

Study Objective

1. To evaluate long-term outcomes in patients undergoing percutaneous coronary intervention (PCI) with Crush technique as compared to Culotte technique for coronary bifurcation lesions.

2. Evaluate the Target Vessel Failure before discharge and at 12 months post discharge

PI Opinion

Complex Coronary Bifurcation disease is still an unanswered question to the interventional community. The older crush & culotte technique has been modified to mini crush, D.K. crush, Nano crush, micro culotte & D.K mini culotte. This is a multicentre study to compare the effectiveness of the technique after completion. Each centre is given a freedom to do such cases (50 in number +) by a technique (accepted internationally) which is most comfortable with and compare the results after one year.



Rivaroxaban (Xarelto®) for Prevention of Stroke and Systemic Embolism in Indian Patients with Non-valvular Atrial Fibrillation (NVAF) - (XARIN)

Dr Rajat Sharma
Consultant - Cardiology
Fortis Hospital, Mohali

Introduction

Embolic stroke: Embolic stroke are usually caused by a clot that forms elsewhere in the body and travels through the bloodstream to the brain. Embolic strokes often result from heart disease or heart surgery and occur rapidly and without any warning signs. About 15% of embolic strokes occur in people with atrial fibrillation, a type of abnormal.

Total Number of Sites in India - 50

Total Sample size from India - 1000

Dr Rajat Sharma from Fortis Hospital, Mohali has successfully enrolled 84 patients.

Primary Objective

1) The safety of Rivaroxaban regarding the rate of major bleeding in treatment naïve NVAF patients in routine clinical practice.

2) To monitor treatment emergent adverse events and serious adverse events.

Potential Benefits

To understand the safety and efficacy of the Rivaroxaban in Indian population which will guide the physician in the prevention of NVAF.

PI Opinion

Although the interim analysis is due, the NOAC's has been quite effective and safe as well in the preventive strategy for stroke on NVAF patients.

Management of Device Detected Atrial Tachyarrhythmia and Impact of Device Treatment Algorithms on Atrial Fibrillation in Indian Population - "MANDATE AF Study "

Dr Rajat Sharma
Consultant - Cardiology
Fortis Hospital, Mohali

Atrial fibrillation (AF or A-fib) is an abnormal heart rhythm (arrhythmia) characterized by rapid and irregular beating of the atrial chambers of the heart. It often begins as short periods of abnormal beating, which become longer or continuous over time.

Total Number of Sites in India-9

Total Sample size from India - 758

Dr. Rajat Sharma from Fortis hospital, Mohali successfully enrolled the 20 patients.

Primary objective

1. The primary objective of this study is to demonstrate that reduced ATP sequence programming is non-inferior to Minerva study ATP programming with respect to time to persistent AF and their impact on the progression of AT/AF.

Potential Benefits

To evaluate the ATP in the management of AF, which resembles a trend toward the improved efficacy in the MANDATE AF. ATP programming, which is less aggressive strategy than the prior MINERVA study.

PI Opinion

The study however, was prematurely terminates due to non-recruitment of desired patients due to COVID-19.

Use of Machine Learning and Statistical Inference Methods for Identification of Risk Factors Associated with the Development of Incident Atrial Fibrillation (AF) in Indian Patients in the Tertiary Care Settings (ML-Study)

Dr Arun Kochar
 Additional Director -
 Interventional Cardiology,
 Fortis Hospital, Mohali

Introduction

Atrial Fibrillation is the most common sustained heart arrhythmia, Stroke is considered one of the most devastating complications of AF, it may cause permanent disability and cognitive dysfunction, which may financially and emotionally impact the families of the affected individuals

People with undiagnosed AF are at an increased risk of stroke-related death or disability. Early detection and

effective management can improve the patient outcome and lessen the economic burden of AF

Total Number of Sites in India - 10

Total Sample size from India - 10,000

Dr Arun Kochar from, Fortis hospital, Mohali has successfully provided the data for 600 retrospective subjects in the study.

Primary Objective

To identify the risk factors for development of incident AF in Indian patients in the tertiary care settings.

Potential Benefits

Machine learning can identify non-

linear associations and complex interactions between variables and does not require pre-specifying these relationships a priority. The use of machine learning is a data-driven approach for the prediction of diseases that will help physicians in quick decision making and will also improve efficiency and accuracy.

PI Opinion

To identify the risk factors for the development of incident AF in Indian patients in the tertiary care settings, may result in the reduction of their risk of systemic embolism or stroke.

International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA)

Dr Atul Mathur
 Executive Director -
 Interventional Cardiology &
 Chief of Cath Lab,
 Fortis Escorts Heart Institute,
 Okhla, New Delhi

Introduction about the study

Study compares two standard ways to treat ischemia.

1. One treatment method uses medicines and lifestyle changes along with initial heart procedures consisting of cardiac catheterization followed by stent placement or surgery to improve blood flow, when feasible.
2. The other treatment method

uses medicines and recommended lifestyle changes. Heart procedures were only used if symptoms could not be controlled with medication

Total number of sites Globally – 20

Total number of Patient randomized Globally - 941

Dr Atul Mathur from FEHI has successfully screened 81 patients and randomized 44 patients.

Primary objectives

Primary objective is to determine whether an initial invasive (INV) Strategy of cardiac catheterization and optimal revascularization ,if feasible in addition to optimal

medical therapy (OMT) in patient with stable ischemic heart Disease and least moderate ischemia on ischemia testing reduces the incidence of the composite of cardiovascular death or nonfatal MI compared with a conservative strategy of optimal medical therapy alone with cardiac catheterization and revascularization reserved for failure of OMT

PI opinion

This landmark study will be a game changer in clinical management of CAD patients. Our centre has enrolled significant number of patients in this trial and are following very closely.



A Prospective, Observational, Single Arm, Multicenter Registry of the Shockwave Coronary Intravascular Lithotripsy (IVL) C2 Coronary Catheter System in Calcified Coronary Arteries in Real World Indian Population (Shock India Registry)

Principal Investigator-

Dr Ashok Seth

Chairman -

Fortis Escorts Heart Institute

Chairman - Fortis Medical Council

Chairperson -

Cardiology Specialty Council

President - Asian Pacific Society of
Interventional Cardiology (APSIC)

Fortis Escorts Heart Institute,
Okhla, New Delhi

Co-Investigators-

Dr Atul Mathur, Dr Vijay Kumar

Dr Praveer Aggarwal, Dr Vishal

Rastogi, Dr Nishith Chandra

Dr Dhananjay Kumar

Introduction About the Study

Calcified coronary lesions are associated with advanced age, diabetes, and chronic kidney disease. Approximately 38% and 73% of all lesions display calcification as detected by angiography and Intravascular ultrasound (IVUS), respectively. As IVUS is not routinely used as a diagnostic modality, coronary calcification is most likely underestimated.

Coronary artery calcification impacts interventional outcomes by adversely affecting stent delivery damaging the drug-eluting polymer and impairing stent expansion and apposition. Current therapies used to overcome these limitations include high-pressure balloon dilation and atherectomy.

However, balloon angioplasty is limited in its ability to modify calcific plaque. Dilatation in eccentric calcium may be biased by the guidewire towards the non-calcified segments of the artery; in concentric calcium, the pressure-generated force may be insufficient for calcium fracture and vessel expansion.

Primary objectives

The Primary objective of this study is to evaluate the performance of the Shockwave Coronary Intravascular

Lithotripsy (IVL) System in severely calcified, stenotic coronary arteries followed by stent implantation in Real World Indian Population.

Total number of sites in India - 54

Targeted Patient Enrollment - 1000

Duration of the Study - 1 Year

Dr Ashok Seth from FEHI has successfully enrolled 24 patients till date.

Potential Benefits

Benefits of this study is that the study will provide performance data from IVL treatment of calcified, stenotic, coronary lesions prior to stenting. These clinical results will give physicians valuable information of using IVL in Real World Indian Population.

PI Opinion About the Study

Intravascular Lithotripsy (IVL) is a huge advancement in the treatment of heavily calcified lesions in Coronary and Peripheral Vascular Disease. It uses the principles of shockwaves to fracture calcium similar to the lithotripsy used for renal stones. However, it is now miniaturized into a balloon form which is inserted in the coronary arteries across the calcified lesion and shockwave emitted to fracture the calcified lesions at low

pressures prior to stent implantation with safe, predictable and good outcomes in the very difficult subset of patients. IVL was introduced by Dr Seth into India on Jan 2020. To date randomized studies of IVL have proven its safety, efficacy and advantages. However, these were done with select inclusion criteria which omitted complex coronary artery disease.

Hence, 'Shock India' is the largest 1000 patient Registry in the world enrolling Real World patients from 54 centres in India looking at safety and efficacy data points in unselected complex real-world patients and lesion subsets. The result of 'Shock India Study' will provide major additional information of the utility of this innovative device in complex calcified lesions. Approx. 500 patients have already been enrolled into the study. This is an investigator-initiated registry and the National Principal Investigator is Dr Ashok Seth.



IVL Device 1



IVL Device 2

COMPACT & RECHARGEABLE

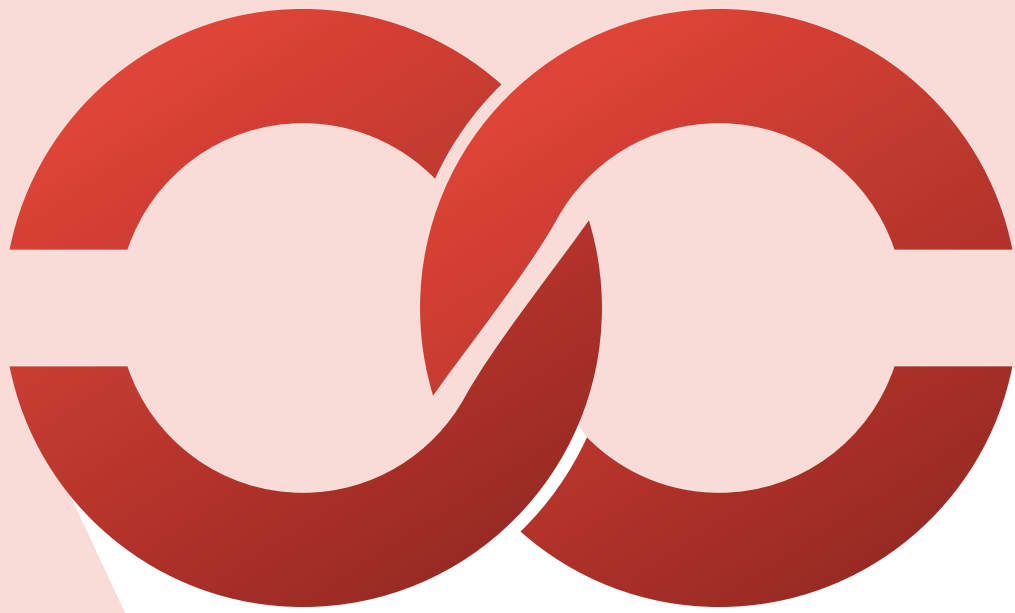
Portable, IV-pole Mounted, Battery Powered

SIMPLE & QUICK CONNECTOR

Smart Magnetic Connection

INTUITIVE & SAFE CATHETER

RX System, Any .014" Guidewire,
Standard PCI Technique



COVID-19

Venous Sinus Thrombosis Due to Vaccine-Induced Thrombotic Thrombocytopenia (VITT): A Case Report



Dr Neetu Ramrakhiani
Director - Neurology
Fortis Escorts Hospital, Jaipur

Authors:
Neetu Ramrakhiani¹,
Palak Mamodia¹, Devang Sharma¹
and Nitesh Agarwal²

Abstract

Patient, 19-year-old male, presented with fever, abdominal pain, headache, and vomiting presented after vaccination with ChAdOx1 CoV-19 (AstraZeneca, University of Oxford, and Serum Institute of India, and adenoviral-based vaccine) with alteration in sensorium and thrombocytopenia. He was diagnosed to have extensive venous sinus thrombosis with mass effect, midline shift, and underwent decompressive hemi craniotomy. He had a good outcome.

Keywords

VITT, Oxford vaccine, Venous sinus thrombosis

Introduction

Vaccine-induced immune thrombotic thrombocytopenia (VITT) is a very rare syndrome (1 case per 26,500 to 1 case per 1,27,300 first doses of AstraZeneca/COVISHIELD administered)¹ associated with COVID-19 vaccines.

Case History

A 19-year-old young male was admitted to our hospital with a history of seizures and alteration in sensorium preceded by fever, abdominal pain, and thrombocytopenia. The patient with no prior morbidity has a history of vaccination on June 9, 2021 with ChAdOx1 CoV-19 vaccine (AstraZeneca, University of Oxford, and Serum Institute of India, an adenoviral vector-based vaccine). Post vaccination, he initially developed a persistent fever from day 2 onward accompanied by body aches, vomiting, and abdominal pain which was not investigated initially and treated on lines of gastritis at a local dispensary. In view of lack of relief, he consulted a gastroenterologist; when ultrasonography abdomen was found to be unremarkable, liver function test did not show any major abnormality. The platelet count was recorded to be 27,000 (Figure- 1). Treatment was continued with antibiotics (levofloxacin, cefixime, ornidazole, and rabeprazole). He continued to worsen and suffered from seizure-related headaches when

neurology opinion was taken and non-contrast computed tomography (NCCT) and magnetic resonance venography revealed venous sinus thrombosis of right internal jugular vein, sagittal and transverse sinus. At the time of admission, the patient was dull, drowsy, complaining of persistent abdominal pain without any neck stiffness, or focal neurological deficit. Platelet count was low (70,000), hence considering other differential diagnoses, a workup for dengue and malaria was done and found to be negative. To evaluate further causes of thrombocytopenia, antinuclear antibody test was sent which was negative. There was no underlying malignancies or drug on board causing thrombocytopenia. The 4T score which is a modified score for heparin-induced thrombosis (HIT) for diagnosis of VITT was 7 out of 8 indicating a very high possibility of VITT. Keeping the possibility of VITT, intravenous immunoglobulin (IVIg) was started (Figure 2). On the night of admission to our hospital, patient had an episode of seizure and

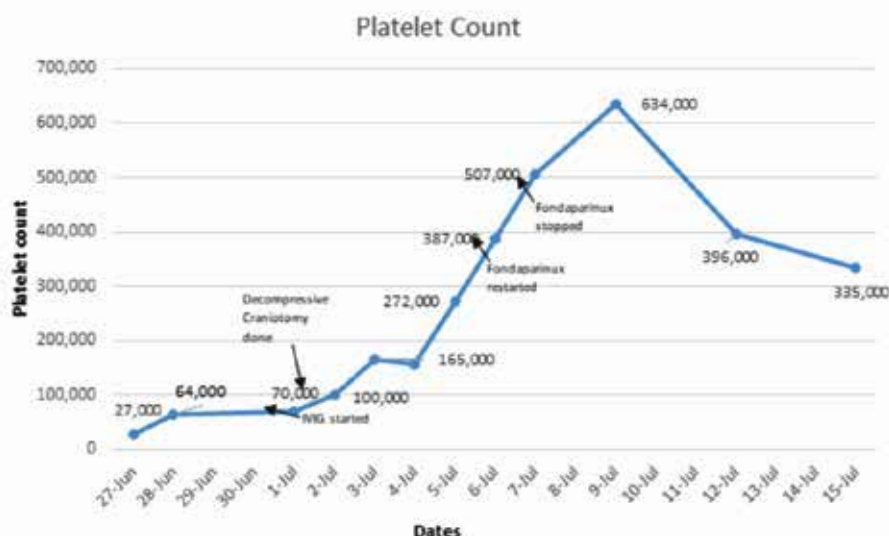


Figure 1: Showing Serial Platelet Count with Timeline

developed anisocoria. The patient became unresponsive to deep pain stimulation. Urgent magnetic resonance imaging was done which showed worsening of mass effect with midline shift (Figure 3). Neurosurgical consultation was taken and the patient underwent urgent decompressive craniotomy. Patient was started on IVIG and temporary discontinuation of fondaparinux was done. His platelet counts significantly improved on the second day (1,50,000) and third day (1,65,000) The patient was extubated and restarted on fondaparinux and later switched to dabigatran. NCCT was repeated 32 days' post-vaccination which did not indicate any significant worsening and midline shift. The patient was switched from intravenous antibiotics to oral antibiotics. The patient was stable, tolerating feed, and able to walk independently. He was finally discharged with optimized medication.

Discussion

VITT is a rare clinical syndrome observed in a small number of individuals who have received ChAdox1 CoV-19 and Ad26-Cov2S Vaccine (Johnson & Johnson). Both the vaccines contain an adenoviral

vector. Although rare in view of mass vaccination, clinicians need to be aware of this clinical syndrome so that appropriate management can be unveiled. It is caused by immunoglobulin-G and antibodies that recognize platelet factors. 2 They cause platelet activation and are not heparin-dependent. 3,4 Thrombus can occur at any site including pulmonary embolism that is adrenal, cerebral, and ophthalmic thrombosis. They are believed to be similar to HIT. Risk factors are unknown but younger age and female gender are found to be affected more. The syndrome begins within 5 to 10 days' post-vaccination and the syndrome may take a longer time in 1 case (21 days). Although male gender CVT can sometimes be seen, the presence of simultaneous thrombocytopenia and thrombosis at an appropriate time window following vaccination leads to this diagnosis. The typical platelet counts between 10,000

and 1,00,000 with median count 20,000 to 2,50,000/ μ L. D-dimer was significantly elevated in 1 patient with proven venous sinus thrombosis and venous infarct. VITT is caused by antibodies that recognize platelet factor 4 (PF4) bound to platelets. PF4 antibody testing was not done due to the non-availability of the ELISA PF4 assay. His 4Ts score was 7 out of 8.5 Due to rapid recognition, IVIG was immediately started, and doing craniotomy in presence of thrombocytopenia was challenging. Heparin was avoided because early reports in which patients were treated with heparins described clinical worsening, including death, and early recommendations were to avoid heparin because of the resemblance of VITT to HIT. Only fondaparinux (x-a inhibitor) and dabigatran were used. The patient had a good outcome complete recovery on follow-up.

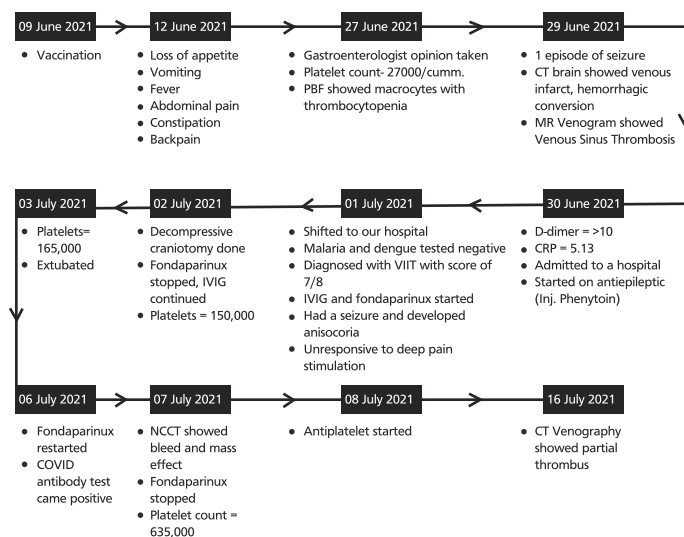


Figure 2: Timeline of Important Clinical Events and Investigations in our Patient

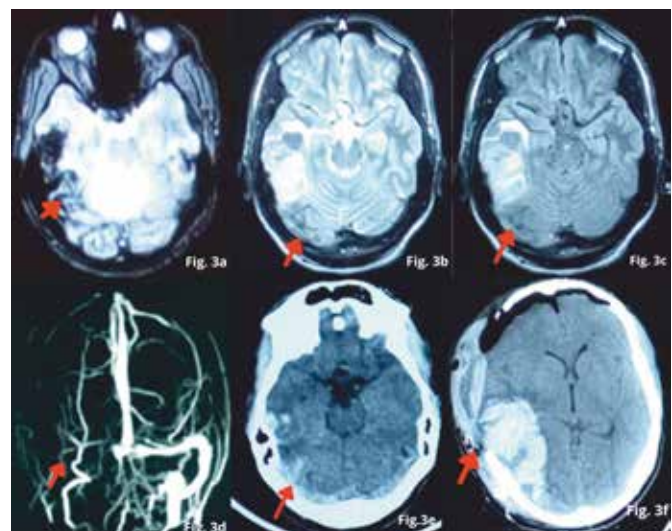


Figure 3 : (a to f). (a) Axial GRE Image Shows Abnormal Blooming in Right Transverse Sinus and Adjacent Right Temporo Parietal Lobe with Widening of Sinus Consistent With Sinus Thrombosis With Hematoma. (b and c) Axial T2W and Flair Images Shows Absence of Flow Void in Right Transverse and Sigmoid Sinus. (d) Frontal MIP Image From Coronal TOF MRV Shows Lack of Flow in Right Transverse and Sigmoid Sinus. (e) Axial Unenhanced CT Image Shows Area of Abnormal Hyper Attenuation in Right Transverse and Sigmoid Sinus Consistent with CVT. Also Noted Right Temporal Shift with Mild Edema. (f) Axial Unenhanced CT Image Shows Right Front Parietal Craniotomy Defect with Large Intraparenchymal Hematoma and Subgaleal Hemorrhage with Pneumocephalus



Consolidating APSIC: A Professional and Educational Platform for the Generation of Young Interventional Cardiologists from the Asia-Pacific Region

Dr Ashok Seth

Chairman -

Fortis Escorts Heart Institute

Chairman - Fortis Medical Council

Chairperson -

Cardiology Specialty Council

President - Asian Pacific Society of
Interventional Cardiology (APSID)

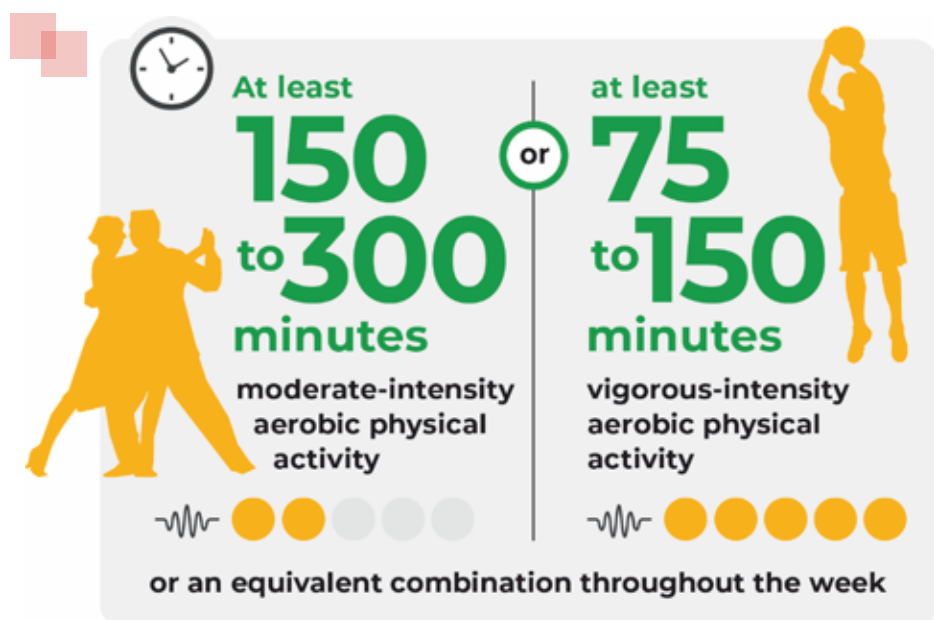
Fortis Escorts Heart Institute,
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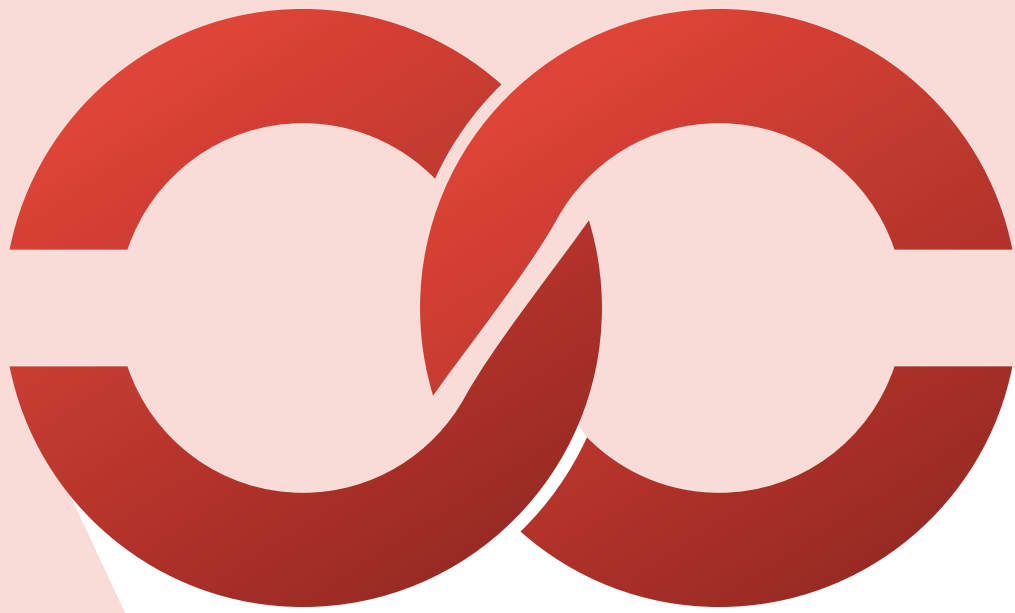
The last 18 months have been unprecedented in our lifetime. The COVID-19 pandemic has affected the entire world and has, at times, brought humanity and its activities to a standstill. It not only created new ways of living in the world but introduced previously unimagined virtual interactions. All this happened soon after I took over the Presidency of the Asian Pacific Society of Interventional Cardiology (APSID) in November 2019. Despite the numerous limitations for in-person meetings, there was an opportunity to broaden the participation and the reach of the virtual meetings. And so, in April 2020, we started conducting virtual board meetings and bimonthly scientific sessions, leading to a virtual Asian Interventional Cardiovascular Therapeutics (AICT) Asia PCR session in December 2020. The vicious second wave of the Delta virus, however, brought the worse form of contagion we had ever seen.

The rapidity and seriousness of the second wave of COVID-19 overwhelmed our healthcare system. Hospitals overflowed with patients on oxygen and ventilators. It was both morally and physically exhausting; most families in India were affected, with close friends or relatives succumbing to COVID-19. This gave us no time to advance a number of ambitious plans that we had for APSIC this year. We worked

hard to create a new format, a new edition of AICT-Asia PCR 2021, with virtual sessions transmitted from three studios located in Singapore, New Delhi and Kuala Lumpur, and in-person attendance. This educational and interactive event, held 8-9 October 2021, was exciting, especially for the young generation of interventional cardiologists of the Asia-Pacific region. This year we have also been able to “refresh” Asia Intervention, the official journal of APSIC, with a new editorial board led by Prof. Upendra Kaul. This has led to the journal now being on track for possible PubMed indexation. We have an ambitious agenda to complete over the next year as we emerge from the wrath of the COVID-19 pandemic and gradually start to normalize. In terms of virtual education, monthly virtual scientific symposia, primarily targeting a generation of young cardiologists, are planned. We need to encourage research and hence will create APSIC scholarships for worthy applicants who may want to spend time at other centers in the Asia-Pacific region for

research or skill enhancement. Partnerships are planned with other interventional societies across the world, both for collaboration in “consensus statements”, as well as for scientific sessions. Reconstituting the APSIC board to include representatives of various national interventional societies of the Asia-Pacific region will be an important step in cementing these relationships and working together. We also need to encourage and create greater opportunities for participation of women in interventional cardiology. Hence, we will create a subcommittee for this purpose and hope that we can work to overcome the gender inequality in interventional cardiology, where fewer than 5% are women. There is a lot of work to do over the next year, but I am sure we will be able to accomplish new dimensions by working together with focus and determination. We are cut out for the task before us, the vision is clear, and the time is right to strengthen APSIC as its mission is “Transforming lives through advancing innovation and global partnerships.”





MEDICATION SAFETY UPDATE



PHARMACO-VIGILANCE

Encouraging Reporting of Adverse Drug Reactions

WHY PHARMACOVIGILANCE ?

- To monitor Adverse Drug Reactions (ADR)
- To optimize safe and effective usage of medicines
- To monitor benefit-risk profile of medicines
- Generate independent, evidence based recommendations on the safety of medicines
- Support CDSCO for formulating safety related regulatory decisions for medicines
- Create a national centre of excellence at par with global drug safety monitoring standards

WHO CAN REPORT?

All healthcare professionals (Clinicians, Dentists, Pharmacists and Nurses) can report adverse drug reactions

WHAT TO REPORT?

A reaction is serious when the patient outcome is:

- Death
- Life-threatening
- Hospitalization (initial or prolonged)
- Disability (significant, persistent or permanent)
- Congenital anomaly
- Required intervention to prevent permanent impairment or damage

SOME RECENT DRUG SAFETY ALERTS

Cefoperazone Induced Coagulopathy, August 2022

The Indian Pharmacopoeia Commission (IPC), has flagged drug safety alert in Aug 2022 revealing that Injection Cefoperazone, a third-generation cephalosporin antibiotic, is associated with adverse event known as coagulopathy which may cause uncontrolled internal or external bleeding and may be life-threatening. The reason for coagulopathy is a side chain of N-methylthiotetrazole in the structure of cefoperazone which can inhibit vitamin K metabolism resulting in hypoprothombinemia.

Itraconazole Induced SDRIFE in May 2022

Symmetrical Drug Related Intertriginous and Flexural Exanthema (SDRIFE) also known as Baboon Syndrome, it is a symmetrical erythematous rash on the flexures after systemic exposure to Itraconazole, flagged by IPC drug safety alert, in May 2022.

Itraconazole is an antifungal drug used for Systemic aspergillosis and candidiasis, cryptococcosis, sporotrichosis, Paracoccidioidomycosis, blastomycosis and other rarely occurring systemic or tropical mycoses, Empiric therapy of febrile neutropenic patients with suspected fungal infections.

Losartan Induced Muscle Spasm

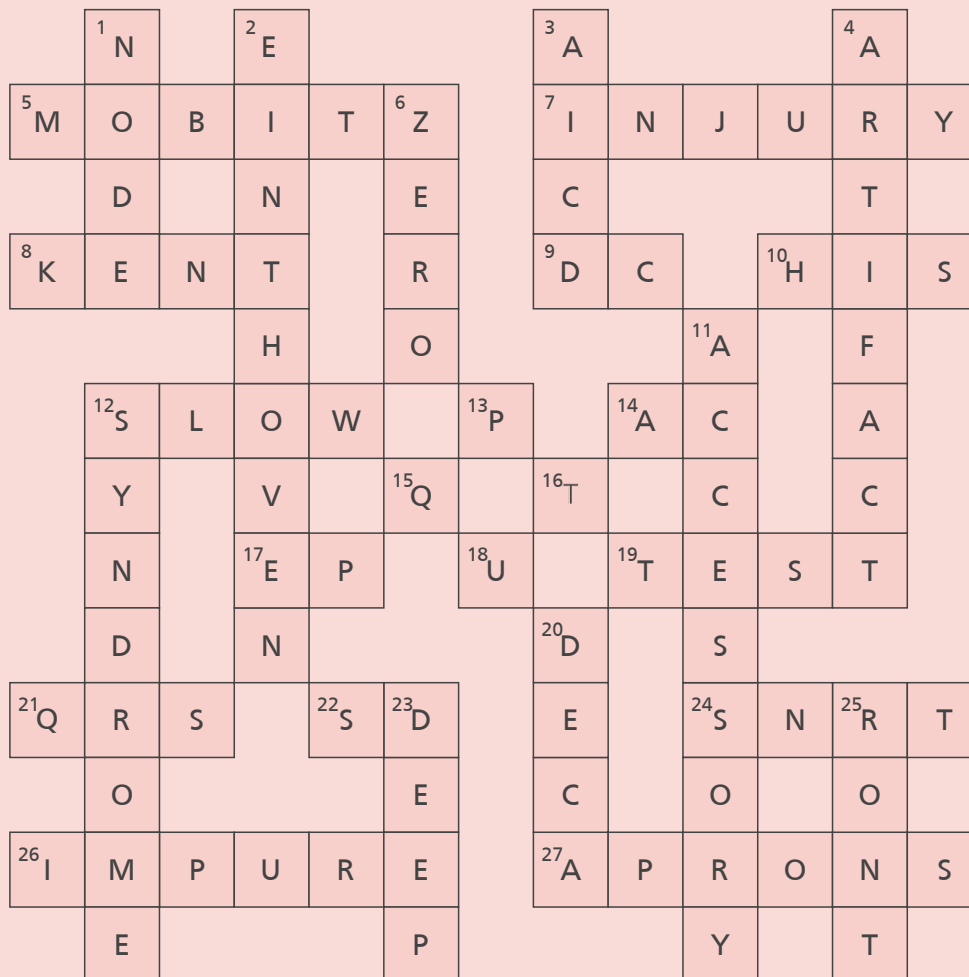
The Indian Pharmacopoeia Commission (IPC) through its recently issued drug safety alert on February 2022, has revealed that the popular antihypertensive drug, losartan is linked with adverse drug reaction, muscle spasm.

Tacrolimus Induced Gingival Hypertrophy

Drug safety alert issued by IPC in July 2022, tacrolimus is linked with gingival hypertrophy or hyperplasia, a condition that refers to an overgrowth of gum tissue around the teeth. The exact mechanism of this gingival hyperplasia is not known. It was hypothesized that the long-term use of the drug may have a direct or indirect impact on gingival fibroblasts and collagen metabolism.

Tacrolimus used for Prophylaxis of organ rejection in adult and paediatric patients receiving allogeneic liver, kidney, heart, or lung transplants and immunodisorder.

Answers To ECG Crossword



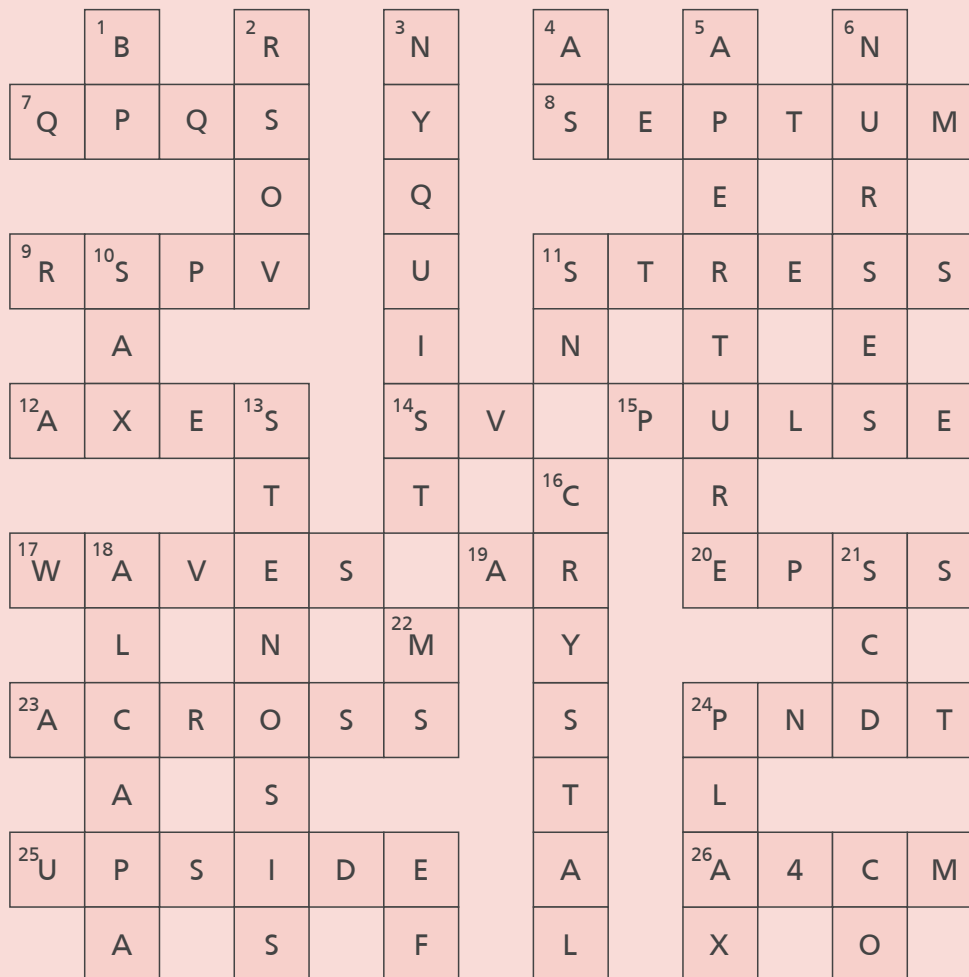
DOWN

- The sinus _____ initiates the heart beat (4)
- Invented first practical electrocardiogram in 1903 (9)
- A device that performs cardioversion, defibrillation & pacing of the heart (4)
- Electrical interferences that may distort normal ecg tracing (8)
- The vector sum of amplitude of all 3 standard limb leads is equal to _____ (4)
- Electrical conduction pathway between atria and the ventricle in WPW syndrome (9)
- RBBB with coved ST elevation in V1 to V3 is referred to as Brugada _____ (8)
- A negative deflection preceding an R wave (1)
- The wave due to ventricular repolarisation (1)
- Electrical mapping of heart is done by _____ polar catheter (4)
- In Wellens syndrome T waves are _____ and symmetrically inverted (4)
- Superimposition of an ectopic beat on preceding T wave likely to initiate ventricular tachycardia (1,2,1)

ACROSS

- The second degree AV blocks are named after him (6)
- Flow of current from damaged to normal area of heart is called current of _____ (6)
- Accessory conduction pathway between atria and ventricle (4)
- Cardioversion that is life-saving in terminating ventricular fibrillation, abr (2)
- The bundle that transmits electrical impulses from AV node to ventricles (3)
- AVNRT occurs due to reentrant circuit involving _____ and fast pathways in AV node. (4)
- The wave of atrial depolarization (1)
- This electrical interference that is displayed as a thick baseline on ecg waveform (2)
- Study to map the electrical activity of the heart, abr (2)
- The wave due to repolarisation of purkinje fibers (1)
- RF ablation is the _____ treatment for AVNRT (4)
- The ecg complex of ventricular depolarization (3)
- Umbrella term for different causes of sudden cardiac arrest in young people, abr (2)
- Electrophysiological parameter prolonged in sick sinus syndrome (4)
- Right atrium receives _____ blood (6)
- White coats worn by doctors (6)

Answers To ECHO Crossword



DOWN

7. Pulmonary-systemic flow ratio (4)
8. Its asymmetric hypertrophy occurs in HOCM (6)
9. One of the 4 pulmonary veins draining into left atrium (4)
11. Dobutamine _____ echo is used for assessing myocardial ischemia (6)
12. Plural of axis (4)
14. Stroke volume, abr (2)
15. _____ repetition frequency is the number of pulses/sec (5)
17. Echocardiography uses high frequency sound _____ (5)
19. Aortic regurgitation, abr (2)
20. Distance between anterior mitral valve peak & the ventricular septum on M-mode tracing (4)
23. In valvular stenosis, gradients _____ the valve is increased (6)
24. The act enacted to stop female feticides (4)
25. On echocardiography aortic valve closure resembles an _____ down Mercedes benz sign (6)
26. Basic echo view showing all 4 chambers (4)

ACROSS

1. Blood pressure, abr (2)
2. Results in shunt from aorta to other heart chambers mostly right atrium, abr (4)
3. Doppler term which specifies maximum velocity that can be recorded without aliasing (7)
4. Aortic stenosis, abr (2)
5. Synthetic _____ echo imaging is better than phased array in studying anatomical details (8)
6. Assists doctors in patients care (6)
10. Short axis view, abr (3)
11. Sinus node, abr (2)
13. Rheumatic affection may cause valvular regurgitation or _____ (8)
16. Its Piezoelectric effect is the basis of echocardiography (7)
18. Other name of Bland-White-Garland Syndrome (6)
21. Sudden unexpected death due to cardiac arrest (3)
22. Narrowing of mitral valve, abr (2)
24. Basic parasternal echo view (4)

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