

SYNAPSE

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It's not that I'm so smart, it's just that I stay with problems longer." – Albert Einstein

LIFE AT CAMPUS

Aarogya Manthan 2023

Students of the IIHMR Delhi attended the "Aarogya Manthan 2023", which was held at Vigyan Bhawan on September 26, 2023. The event marked the 5-year celebration of Pradhan Mantri Jan Arogya Yojana (PMJAY) and the 2-year celebration of the Ayushman Bharat Digital Mission (ABDM). The Union Health Minister, several eminent personalities from the healthcare and other sectors, and representatives of healthcare organizations graced the events. The event provided excellent exposure and learning to the students.



World's Patient Safety Day Conference on Patient Safety

Students from IIHMR Delhi attended the conference held on 16th September at Rajiv Gandhi Cancer Institute & Research Centre (RGCI) and participated in the poster presentation, quiz & paper presentation. Students also won prizes in quizzes and poster presentations. The

event highlighted the importance of enhanced patient engagement and their safety.



Transgender Sensitivity at IIHMR

IIHMR Delhi, in collaboration with the Association for Transgender Health in India (ATHI), organized a session on Transgender Sensitivity on 27th September 2023. Mr. Aryan Pasha shared invaluable

CINI (Child in Need Institute) Conference

IIHMR Delhi hosted a conference in collaboration with CINI (Child in Need Institute), aimed at empowering our MBA/PGDM Healthcare students. The event, organized by CINI, highlighted the critical issues of poverty, malnutrition, and abuse, with a particular focus on their impact on children and women. This partnership significantly contributes to our Student Enhancement Program, equipping our future healthcare leaders with the knowledge and empathy needed to advocate for the protection of children.



insights into India's Transgender Community. The session highlighted the importance of values, such as diversity, empathy, and understanding towards building an inclusive society and creating a more accepting world.



Data Analysis for Policy Development Workshop

A three-day workshop on 'Gender Data Analysis for Policy Development: Asia Pacific Program', was held from 17-19 October 2023 in IIHMR Delhi. Spearheaded by IIHMR Delhi and Vital Strategies, the workshop witnessed the participation of people from 8 nations, strengthening the cross-border collaboration for gender-inclusive policy

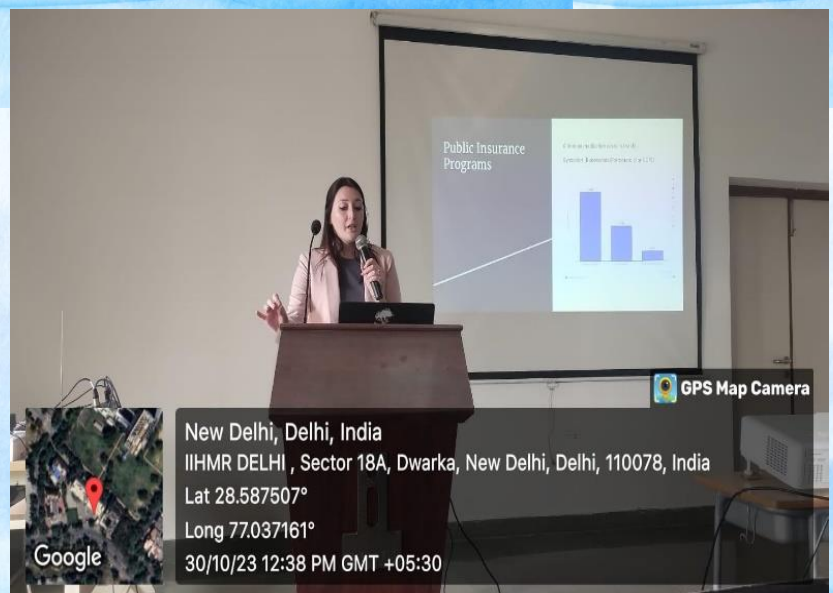


International Day of Disaster Risk Reduction

Students from the IIHMR Delhi participated in the International Day of Disaster Risk Reduction, which was hosted by the National Institute of Disaster Management (NIDM) on 13th October. It was the culmination of the 10-day-long nationwide Disaster Risk Reduction (DRR) sensitization events, conducted dedicated team of IIHMR Delhi under the guidance of Dr. Nidhi Yadav and Dr. Sutapa B Neogi. It was an enriching and enlightening experience for the students to listen to the exceptional individuals who shared the commitment to building a more resilient world.

Seminar on US Healthcare

IIHMR Delhi organized a seminar on “Healthcare Innovation and System in the USA and Infection Control/Epidemiology” on 30th October 2023. Dr. Cara Lyons, a young public health professional from the USA was the key resource person for the seminar



“The purpose of learning is growth, and our minds, unlike our bodies, can continue growing as long as we live.” – Mortimer Adler

Tri-Fest Extravaganza: Embracing Culture, Honoring Teachers, and Celebrating Sports!

At IIHMR Delhi, we recently witnessed a magnificent confluence of celebrations that brought our community closer, reinforcing the bonds that make our institution special.



Dandiya Night illuminated our campus with the spirit of Navratri. Faculty members and students joined in colorful attire to celebrate the goddess Durga and the triumph of good over evil. The rhythmic Garba dances created a sense of togetherness and reverence that enlivened the nine-night festival.

Teachers' Day Celebration was a day of gratitude and festivity, as we honored our guiding lights. Our students orchestrated a memorable day with cake cutting and mesmerizing performances, expressing their heartfelt appreciation for our beloved teachers.

“Inspiration is the windfall from hard work and focus. Muses are too unreliable to keep on the payroll.” – Helen Hanson



Sports Week 2023 showcased the athletic prowess of our students and underlined our commitment to holistic development. This event provided a platform for our students to display their talents and nurture essential life skills while fostering camaraderie and sportsmanship among all participants.



Dandiya Night

These celebrations at IIHMR Delhi exemplify the spirit of unity, gratitude, and holistic growth that defines our institution. We look forward to many more such moments that bring our community together and make our institution shine even brighter.

“Focus on making yourself better, not on thinking that you are better.” – Bohdi Sanders

ACADEMIA

SAAS in Healthcare



Software as a Service (SaaS) is a cloud computing model where software applications are provided over the internet on a subscription basis. Users can access these applications via web browsers, eliminating the need for installation and maintenance on individual devices. SaaS providers host and maintain

the software, handle updates, and ensure data security. A range of IT professionals, business users, and personal users use SaaS applications, ranging from personal entertainment, such as Netflix, to advanced IT tools.

In the healthcare sector, SaaS applications are extensively utilized for various purposes, including electronic health records (EHR) management, telemedicine services, medical billing and coding, appointment scheduling, and healthcare analytics. These applications streamline healthcare processes, enhance patient care, and improve overall operational efficiency. According to Deloitte, the global SaaS market has grown at an annual rate of 25% from 2011 to 2020. Healthcare cloud computing is estimated to grow to USD 64.7 billion by 2025 with a Compound Annual Growth Rate (CAGR) of 18.1% compared to 2020. Another research shows that the healthcare SaaS market is expected to reach USD 51.7 billion by 2028.

“Don’t be afraid to give up the good to go for the great.” – John D. Rockefeller

Benefits of SaaS in the Healthcare Industry

1. **Scalability:** SaaS solutions can scale according to the needs of healthcare organizations, accommodating growth without significant investments in hardware or software. With SaaS products, there is minimal effort required to scale the services required by care providers and minimal expenditure related to it.

2. **Operational Efficiency:** SaaS systems make it easy to communicate between existing systems, ensuring seamless information flow. Also, SaaS systems help stakeholders provide a holistic view of the patient journey.

3. **Data Security and Compliance:** Reputable SaaS providers adhere to strict security standards, crucial for

protecting sensitive patient-related data and ensuring compliance with healthcare regulations.

4. **Cost-Effectiveness:** SaaS eliminates the need for expensive infrastructure and software licenses, making it a cost-effective solution for healthcare providers.

5. **Accessibility and Convenience:** Healthcare professionals can access patient data and critical applications from anywhere, improving the efficiency of healthcare delivery.

6. **Automatic Updates:** SaaS providers handle updates and maintenance, ensuring that healthcare systems are always up-to-date with the latest features and security patches.

The real mistake is to stop trying.” – B. F. Skinner

RESEARCH INSIGHTS

INCREASED ARTERIAL STIFFNESS IN ADOLESCENTS WITH OBESITY

Metabolic and cardiovascular issues are increasingly being witnessed among children, largely due to the rising incidence of obesity and the shift of obesity towards a younger age. Routine clinical evaluations seldom include measurements for early cardiovascular changes in obese children, potentially leading to underestimation and inadequate treatment of obesity-related cardiovascular complications. Increased arterial stiffness is an early indicator of cardiovascular disease. There are many factors, such as ageing, decreasing elastin fibres, overproduction of abnormal collagen, hypertension, dyslipidaemia, etc exerting an influence on arterial stiffness. However, evidence about the influence of weight, puberty, and insulin resistance on arterial stiffness is limited and conflicting. Accordingly, this study examined the influence of these factors and compared the arterial stiffness of obese adolescents (61 in number) with lean adolescents (62 in number).

During the period spanning from June 2012 to February 2016, individuals meeting the criteria of being lean (with a body mass index standard deviation score [BMI-SDS] >-1.1 and ≤ 1.1) of Caucasian descent, and aged between 10 and 20 years, were enlisted as controls.

Participants with obesity, involved in a randomized controlled trial comparing metformin versus placebo, underwent pulse wave velocity and augmentation index measurements using applanation tonometry between August 2011 and January 2017. For the purposes of the current study, only the initial pulse wave velocity and augmentation index measurements, conducted prior to the initiation of any study medication, were considered. Those eligible for inclusion were individuals aged 10 to 16 years, of Caucasian descent, and suffering from obesity (with a BMI-SDS >2.3).

The study revealed a notable **increase in pulse wave velocity, a non-invasive measurement for arterial stiffness, among adolescents with obesity.**

The higher pulse wave velocity (and thus Arterial stiffness) observed in patients with obesity suggests that the physiological adaptations have been surpassed, indicating that they may already be exposed to an increased risk of developing cardiovascular diseases.

This observation is strengthened by the fact that the patient subgroup consisted of significantly more girls and was notably younger, both factors typically considered "**protective,**" as **pulse wave velocity is known to be higher in boys and to increase with age.**

With regard to augmentation index, another measurement for arterial stiffness, and obesity, the literature presents conflicting evidence, with some studies showing an association and others not. The study did not find a difference for augmentation index nor any correlation between BMI and augmentation index, it could be suggested that the augmentation index might not be a discriminative measurement for assessing Arterial stiffness in children with obesity.

Considering the influence of sex steroids on Arterial stiffness, differences between Tanner stages were anticipated as sex steroids undergo changes during puberty. It is understood that girls with obesity tend to have relatively **higher androgen levels,** making them susceptible to **increased Arterial stiffness.**

However, the study did not find any significant differences for pulse wave velocity nor augmentation index between Tanner stages in the study population or for the obese

or lean population separately. The lack of differences observed for the Tanner stage in this study might suggest that **Arterial stiffness is not affected by puberty.**

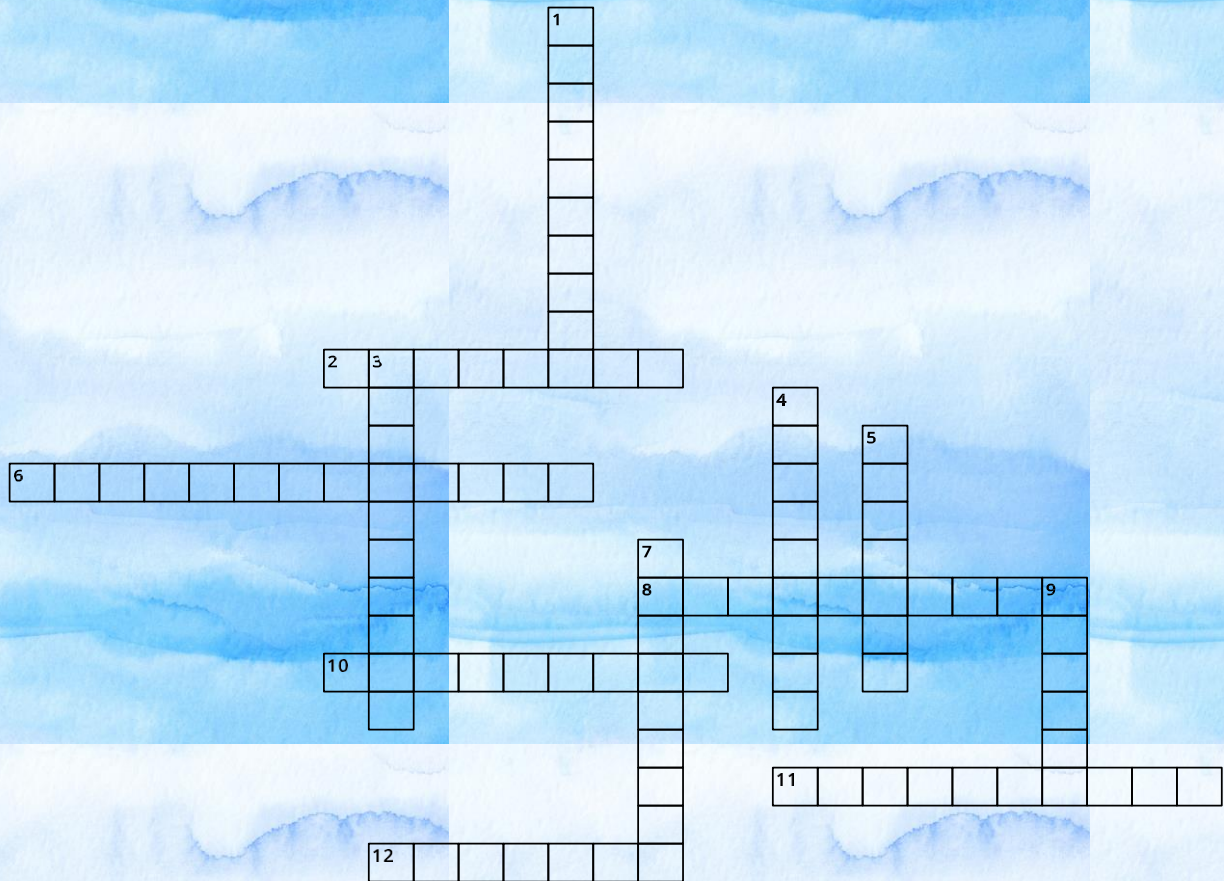
Insulin resistance is commonly associated with obesity. Apart from being a risk factor for the development of type 2 diabetes mellitus, **Insulin Resistance has also been proposed as an independent risk factor for the development of cardiovascular diseases under the study.** The study observed a significant increase in augmentation index, but not pulse wave velocity, in patients with Insulin Resistance, and only augmentation index showed a correlation with Insulin Resistance. However, the association between Insulin Resistance and augmentation index disappeared after adjustments for other cardiovascular risk factors such as age, gender, BMI, and blood pressure.

The study concluded that the higher pulse wave velocity in adolescents with obesity and higher augmentation index in adolescents with obesity and insulin resistance both indicated an increased arterial stiffness. Therefore, study recommended that as part of cardiovascular risk assessment, measurement of arterial stiffness in paediatric populations with obesity and insulin resistance should be considered.

Source : <https://doi.org/10.1177%2F2333794X19831297>



PUZZLE TIME



Across

2. Where you get prescription medications
6. The study of eye diseases and vision
8. Medication used to treat bacterial infections
10. The identification of a medical conditions
11. The branch of medicine focused on children
12. Medical procedures that involve cutting or repairing

Down

1. The numbing or loss of sensation
3. The protein in red blood cells that carries oxygen
4. Inflammation of the joints
5. A healthcare professional who specializes in oral health
7. The branch of medicine that uses imaging for diagnosis
9. A group of diseases characterized by uncontrolled cell growth



HOSPITAL BUZZ

1. Surge in Dengue Cases in New Delhi

Witnessing a surge in dengue patients in New Delhi, the tally of dengue cases recorded in the national capital stood at 348 until August 5, according to an MCD report released on August 7. [Click here to view full text.](#)

2. Respectful Treatment at RML Hospital's Transgender OPD

The first transgender OPD has opened at RML Hospital in New Delhi. The facility has received positive feedback from patients who appreciate being treated without bias. The dedicated OPD provides medical treatment and counselling services for the transgender community, addressing their specific needs.

Source: The Times of India [Click here to view full text.](#)

3. Asia's First Bloodless Heart Transplant Patient Shows Remarkable Recovery

Marengo CIMS Hospital, Ahmedabad, a part of the Marengo Asia Hospitals Group, achieved a milestone in heart transplants by conducting Asia's first bloodless heart transplant. This surgical procedure introduced an innovative approach to manage bleeding during surgery, eliminating the need for blood transfusions. The surgical procedure used a precise technique tailored to minimize blood loss during surgery to the point where blood transfusions are no longer necessary.

Source: The Economic Times [Click here to view full text.](#)

4. Free Cancer Drugs and Insulin for Poor Patients at AIIMS

To benefit poor patients visiting AIIMS for treatment, the hospital authorities have decided to add 63 more medicines, including 45 cancer drugs, to the existing

list of medicines available for free to underprivileged patients.

Source: The Economic Times [Click here to view full text.](#)

5.Delhi's First Skin Donation Performed at AIIMS

The skin of a 42-year-old woman from Jaipur, who succumbed to injuries, was harvested for the first time at AIIMS. This marked the first skin donation in the city. Only AIIMS and Safdargunj Hospital have skin banks in Delhi.

Source: The Economic Times [Click here to view full text.](#)

6.Delhi Air Quality: Pollution and Health Woes Rising pollution levels in Delhi are causing a deterioration in the respiratory conditions of people with asthma or COPD, despite being on medication. Many of these patients have been admitted to hospitals, with some requiring ICU admission. RML Hospital has started a pollution-related illness clinic that offers treatment and advice on

safeguarding health from pollution. Other hospitals are also reporting a significant increase in patients with respiratory ailments and are providing specialized care to tackle this problem. Vaccinations and taking preventive measures like wearing masks and avoiding smoking indoors are being recommended.

Source: The Times of [Click here to view full text](#)

7.Tragedy at Nanded Civil Hospital in Maharashtra

Dr. Shankarrao Chavan Government Medical College and Hospital in Nanded reported 24 deaths, including 12 newborn babies, in the 24 hours between Saturday and Sunday. Hospital superintendent Dr. SR Wakode, while confirming the incident, told TOI, "Out of the 12 newborn babies that succumbed, six were females. Eight of these babies succumbed within zero to three days of birth, while four were referred in critical condition to GMCH, Nanded, from private hospitals, including from neighbouring districts." Source: The Times of India

[Click here to view full text](#)

"Management is doing things right; leadership is doing the right things." – Peter Drucker



HEALTH BUZZ

1. The flu is soaring in seven US states and rising in others, health officials say

The Centers for Disease Control and Prevention posted new flu data on Friday, showing very high activity last week in Louisiana, and high activity in Alabama, Florida, Georgia, Mississippi, New Mexico and South Carolina. It was very high in the District of Columbia and Puerto Rico, the U.S. territory where health officials declared an influenza epidemic earlier this month.

[Read full Article](#)

2. New WHO campaign highlights tobacco industry tactics to influence public health policies

The World Health Organization (WHO), today, officially launches the "Stop the lies" campaign as a vital initiative to protect young people from the tobacco industry and their deadly products, by calling for an end to tobacco industry interference in health policy.

This campaign is supported by new evidence from ‘The Global Tobacco Industry Interference Index 2023’, published by STOP and the Global Center for Good Governance in Tobacco Control.

[Read full Article](#)

“Education is the most powerful weapon you can use to change the world.” – Nelson Mandela

3. New WHO and Ministry of AYUSH, Republic of India agreement signed to advance traditional, complementary, and integrative medicine.

This collaboration will play an important role not only in the globalization of evidence-informed traditional, complementary, and integrative medicine but also in mainstreaming proven TCI practices in national health systems towards achieving universal health coverage and well-being,” said Dr. Bruce Aylward, Assistant Director-General of the Universal Health Coverage and Life Course Division of WHO.

[Read full Article](#)

4. Cough, sputum in long COVID due to acute COVID infection: Study

Multiple prolonged symptoms are observed in patients who recover from acute COVID-19, defined as long COVID. Cough and sputum are presented by patients with long COVID during the acute and post-acute phases. The study published in the journal Respiratory Research, aimed to identify specific risk factors for cough and sputum in patients with long COVID.

[Read full Article](#)

5. First chikungunya vaccine, Ixchiq, approved by US FDA

The US Food and Drug Administration (FDA) has authorized Ixchiq, the first vaccination against chikungunya, for people 18 years of age and older who are more likely to be exposed to a virus carried by mosquitoes. The effectiveness of the vaccine was determined through a clinical study in individuals 18 years of age and older in the US, the agency's statement said.

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6. Surgeons in New York announce world's first eye transplant

Until now, doctors have only been able to transplant the cornea, the clear front layer of the eye. The recipient of the eye, Aaron James, is a 46-year-old military veteran from Arkansas who survived a work-related high-voltage electrical accident that destroyed the left side of his face, his nose, his mouth and his left eye.

[Read full Article](#)



HEALTH IT BUZZ

1. Risk-Based Lung Cancer Screening May Reduce Racial, Ethnic Disparities

A new study validated and recalibrated the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial 2012 risk prediction model across races and ethnicities. Source: Health it analytics [Read full article](#)

2. Generative AI May Facilitate Improved Chest X-Ray Interpretation

North-western Medicine researchers have developed a generative AI model that can outperform radiologists at interpreting chest X-rays in some cases. Source: Health it analytics [Read full article](#)

3. AI Tools May Detect Heart Valve Disease, Predict Cardiovascular Risk

Two studies to be presented at the AHA's Scientific Sessions show that AI and deep learning may be capable of flagging heart disease and cardiovascular event risk. Source: Health it analytics [Read full article](#)

4. Locally Run Large Language Models May Help Preserve Patient Privacy

Researchers have demonstrated that a locally run large language model may be

useful for extracting data from text-based radiology reports while safeguarding privacy. Source: Health it analytics [Read full article](#)

5. Mount Sinai Develops AI Algorithm to Estimate Brain Age Acceleration

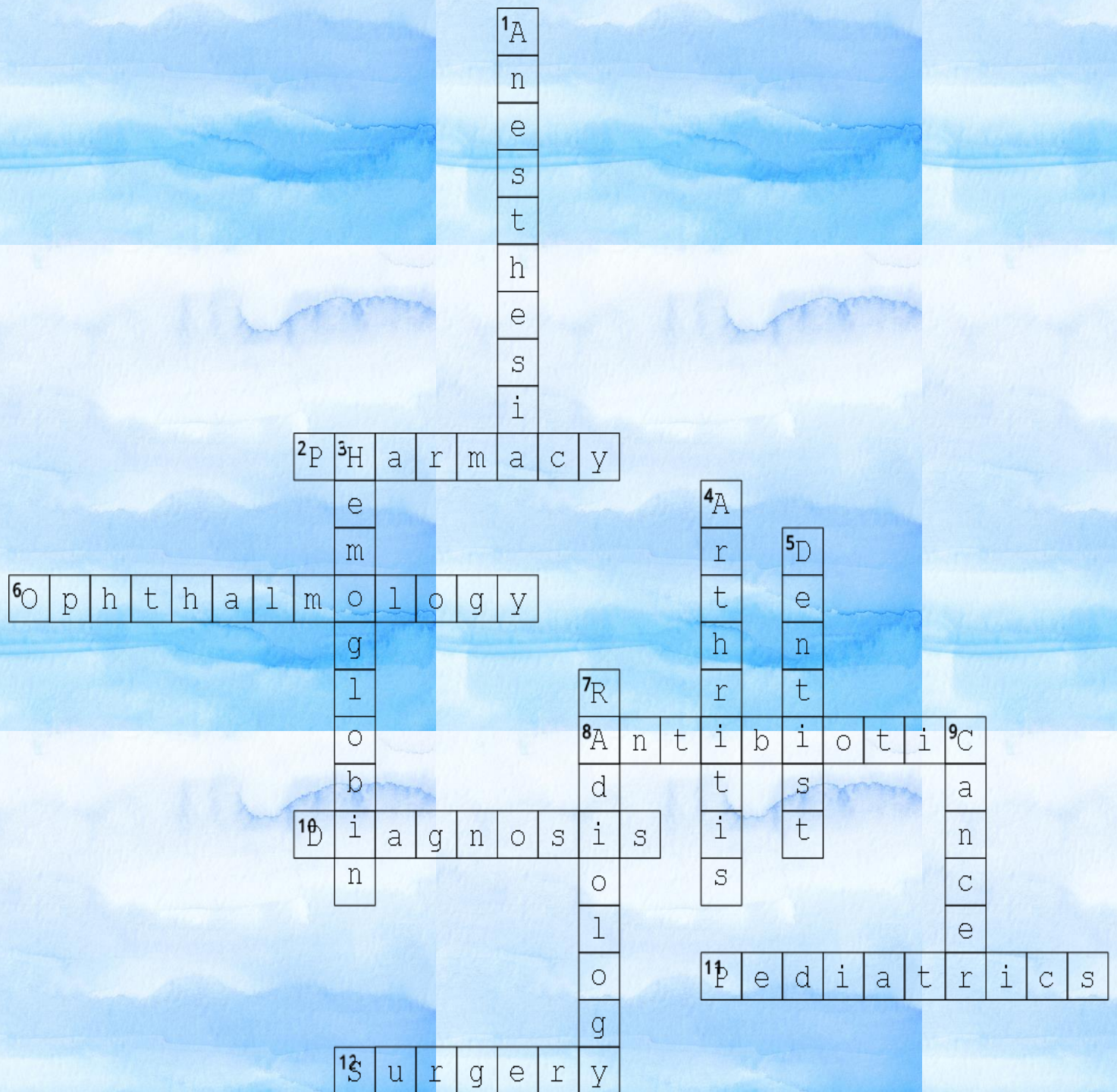
The "HistoAge" model can flag areas of the brain vulnerable to age-related changes and predict age at death within 5.45 years by assessing histological images. Source: Health it analytics [Read full article](#)

6. From AIIMS Delhi to ICMR, data breaches haunt crores of Indians

From a massive ransom ware attack on (AIIMS) that crippled its centralised records and other hospital services last year to the latest Indian Council of Medical Research (ICMR) data leak that allegedly exposed the personal information of at least 81.5 crores Indians, hackers have always been one step ahead of cyber security agencies. Source: The Economics Times

[Read full article](#)

ANSWERS TO THE PUZZLE



“It does not matter how slowly you go as long as you do not stop.” – Confucius



SYNAPSE TEAM MEMBERS

1. Ms. Anushi Bhardwaj
2. Ms. Anamika Singh
3. Ms. Ankita Sigroha
4. Dr. Arpita Lohani
5. Dr. Anshuma Mahalle
6. Ms. Krati Gupta
7. Ms. Eshika Bindal
8. Dr. Bhumika Hooda
9. Dt. Priya Bansal
10. Dr. Ssamridhi Kaur
11. Mr. Rohit Upadhyay
12. Ms. Sweksha Gupta

**“Success is walking from failure to failure with no loss of enthusiasm.” –
Winston Churchill**