ARBITit happens here... **#SNAKE BUSTERS**

Tears For Life

National Research Centre on Camel, Bikaner finds that antibodies derived from camel tears may help neutralize snake venom.





new study reveals that a single drop of camel's tear can counteract snake venom. Learn how this desert miracle could revolutionize snakebite treatment and medicine. In a groundbreaking

development from the arid

be more than just a mode of transport for farmers. A nioneering study by the National Research Centre on Camel (NRCC) in Bikaner has revealed that antibodies derived from camel tears and immune systems may help lands of Rajasthan, the camel, long revered as the 'ship of the desert,' is now proving to

Scientific Breakthrough with Global Implications

he NRCC researchers conducted experiments by immunizing camels (Camelus dromedarius) with venom from the saw-scaled viper (Echis carinatus sochureki), a highly venomous snake species. Antibodies extracted from the animals' tears and blood were found to effectively counteract the lethal effects of venom, particularly hemorrhage and coagulopathy. Notably, these camel-derived antibodies triggered fewer allergic reactions and were more potent compared to tra-

neutralize snake venom, opening a new path to treat snakebites and boosting the incomes of camel-rearing farmers. ditional antivenoms derived from horse immunoglobulin (IgG), which are expensive and complex to produce. India witnesses nearly 58,000 snakebite deaths

annually, with another 140,000 cases of disability, the highest globally. The NRCC's findings could pave the way for more affordable, safer, and scalable treatment options, especially in rural areas where snakebite incidents are common and medical intervention is often delaved.

A Lifeline for Rajasthan's Camel Herders

m his research is also proving economically transformative for camel-rearing communities in regions like Bikaner, Jaisalmer, and Jodhpur. The NRCC has encouraged local farmers to provide their camels for the controlled and safe extraction of tears and blood samples. In return, they are paid handsomely. Pharmaceutical

companies, including the Serum Institute of India and other private drug manufacturers, are now actively seeking camel-derived antibodies. As per estimates. farmers earn an additional 5.000 to 10.000 per camel per month, creating a new revenue stream that is both sustainable and scientifically valuable

From Beasts of Burden to Bio-Miracles

 $W_{immune\ resilience\ and}^{ith\ their\ unique}$ adaptability to extreme climates, camels are now being seen in a new light, not just as beasts of burden but as biological allies in the fight

against one of India's dead liest health hazards. The NRCC's research underscores the untapped potential of indigenous species in medical innovation and rural development.



The Mughal Women Ruled

In 1631, their mother, Mumtaz, died while delivering baby Gauhar Ara. Shah Jahan went into deep depression. The new-born Gauhar needed immediate attention, and somebody had to hold the family together. Jahanara, inexperienced and just 17, took charge. She nursed Shah Jahan back to health, and became a maternal guardian to the younger siblings. Even Aurangzeb would confide in her (he was often an 'injured' party because Shah Jahan never openly showed him affection). Jahanara was the tolerant, conciliatory, mother figure of the family.



Anjali Sharma Senior Journalist & Vildlife Enthusiast



women of the Mughal Empire were not mere ornaments in the imperial court. They were educated, artistic and commer cially and politically savvy, and significantly influenced government decisions even during

Aurangzeb's dictatorial reign. Read on for the remarkable story of Aurangzeb's sisters.

The Mughal emperor Aurangz had three brothers and three sisters (Shah Jahan and Mumtaz had fourteen children in all, but seven of them died during infancy). His equation with his brothers was simple: they were rivals who had to be eliminated. His eldest brother. Dara Shikoh, was beheaded and another brother, Shah Shuja, mysteriously vanished at the Burmese border while fleeing Aurangzeb's army. And his vounger brother. Murad Baksh, was quietly executed in Aurangzeb's prison.

His relationship with his sisters, however, was complex. Instead of marrying and migrating, they remained spinsters in the capital. They were, however, not necessarily celibate, they had affairs and that had some consequences. While Mughal records were silent about these, contemporary European travelers recount tales of their romantic escapades.

The sisters played a significant role in Aurangzeb's life. In fact, the system was loaded against their getting married. Tradition required them to marry a royal who was equal or above their status. By the mid-17th century, the Mughal empire included large parts of Hindustan, Pakistan and Afghanistan, covering over 3 million square kilometres. Where would they find a compatible groom

THE WALL

in the neighbourhood? (On the contrary, Mughal men could, and did, marry princesses of lesser king-

doms and filled their harems!) In 1631, their mother, Mumtaz, died while delivering baby Gauhar Ara. Shah Jahan went into deep depression. The new-born Gauhar needed immediate attention, and somebody had to hold the family together. Jahanara, inexperienced and just 17, took charge. She nursed Shah Jahan back to health, and became a maternal guardian to the younger siblings. Even Aurangzeb would confide in her (he was often

an 'injured' party because Shah Jahan never openly showed him affection). Jahanara was the tolerant, conciliatory, mother figure of the family When normalcy returned Jahan made Jahanara the Padshah Begum ('First Lady'). This was no honorific title: it was the second most powerful post in the empire. She could pass certain orders independently make recommendations to the emperor, and perform certain

actions in his absence. Shah Jahan also gave over half of Mumtaz's estate to Jahanara, dividing the balance between the other siblings. She turned out to be a good entrepreneur.

/ hen normalcy returned, Shah Jahan made Jahanara the Padshah Begum V ('First Lady'). This was no honorific title: it was the second most powerful post in the empire. She could pass certain orders independently make recommendations to the emperor, and perform certain actions in his absence.

even earning good profits through a ship she owned in Surat. She spent her fortune usefully, supporting famine relief, pilgrimages and almsgiving, sponsoring mosques and overseeing the development of Chandni Chowk. Jahanara also wrote many books, including a respected biography of the Sufi saint Khwaja Mojnuddin Chishti.

One person was bitter about Jahanara's huge popularity: Aurangzeb's other sister Roshanara. She was the antithesis of Jahanara: feisty and fun-loving, but resentful of the fact that she had to live in Jahanara's shadow. She too loved poetry, and was a clever businesswoman. She found a natural ally in Aurangzeb who shared a similar grudge: Dara got all the cushy assignments in the government. while Aurangzeb got all the complex tasks, with no appreciation. Shah Jahan's favourite was clearly Dara,

not Aurangzeb. Dara was very different from Aurangzeb. He loved poetry, and dabbled in Sufism and other religious philosophies. He lacked

BABY BLUES





#BEHIND CURTAINS





Expressing through Emoiis

mojis have been used since the beginning of the internet to transmit emotion in the written medium. As internet technology advanced, so did the use of the emoji, with previously pure text bits of ASCII Art turning into fullfledged animated faces and symbols. We've all used them, and we're excited for the future of them! World Emoji Day celebrates the history of these emotional expressions, and encourages you to be exceptionally emotive! After all, it's always nice to let someone know how you're feeling when you write, isn't it? Emojis are just one more way!







Mughal princess Roshnara Begam

A



Aurangzeb's military and gover

nance skills, but was not above

manipulating his father's sympathy

to his advantage. At one point, he

and Shah Jahan plotted to eliminate

urangzeb arrived with a powerful army to fight Dara and Shah Jahan. I Jahanara appealed to Aurangzeb not to fight his own father; she proposed a partition of the land among the four sons (like their ancestral Timurids would have done).

In

Aurangzeb from the imperial race. Roshanara got wind of the conspiracy and warned Aurangzeb. She also turned the Muslim clergy against Dara by pointing out that his secular activities were anti-Islam.

The casualty in this whole affair was Jahanara. It was unlikely that she was involved in any conspiracy. But she was perceived as 'pro-Dara. which in Aurangzeb's books read as 'anti-Aurangzeb.' Born within a year of each other, Jahanara and Dara had not only grown up together, but they also shared a common

Finally, Roshanara was out of Jahanara's shadow! Roshanara did not make a great First Lady. When Aurangzeb was

away, she passed orders that suited her personal interests and enriched her coffers. There were allegations of corruption. As the head of the royal harem, she rode roughshod over the ladies and incurred their displeasure. She was still young and attractive (just over 40) and had flings which were grist for the rumour mill. This was too much for Aurangzeb who was inherently aus

tere to the point of asceticism. In 1667, he dismissed her from the Padshah Begum post and banished her from the Red Fort. She settled at the Roshanara Bagh, a lovely jungle villa that she had built for herself She died in seclusion in 1671, aged only 54. Some historians believe she was discreetly poisoned under

Aurangzeb's orders. Shah Jahan died a prisoner in 1666, and Jahanara's mission was over when she arranged his funeral. Aurangzeb re-appointed Jahanara as the Padshah Begum. It was his way of admitting that he had judged her wrongly, a remarkably un-egoistic admission from the dictator. She resumed her good work in govern ment service, even occasionally moderating Aurangzeb's ultra orthodox and extreme measures. She died peacefully in 1681.

Now about Gauhar Ara Aurangzeb's little sister. Because she was little, she missed all the action in the early part of our story. When she grew up, she took a leaf out of Jahanara's book, working for family unity. In 1673, she played the lead role in conducting the marriage of Prince Sipihr Shikoh (son of Dara Shikoh) and Princess Zubdat-unnissa (Aurangzeb's daughter). Strangely, it did not matter that Sipihr had witnessed his father-in law beheading his father. What mattered was that Zubdat-un-nissa had married a royal of equal status! Gauhar adopted and raised Dara's granddaughter Salima Banu, and conducted her wedding with Aurangzeb's fourth son, Muhammad Akbar. Aurangzeb's relationship with Gauhar was not as intense as with the other two sisters. Yet, when she died in 1706, he lamented, "Of all the children of Shah Jahan, she and I alone were left." Aurangzeb was a man of contradictions: ruthless and greedy for power, he did not care for money, but lived frugally as a pious Muslim. He killed his brothers and did not know how to love his sisters but rued his loneliness after his last sister died. He died within a year and was buried in a simple grave.

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PIERCE, THIS

DATING APP IS

FOR SENIORS.

I'M A SENIOR.

ZITS

We Give Medicines To Our

Medicating low-grade fevers isn't recommended!

hile most parents recognize that a lowgrade fever helps a child's body fight off infection, one in three would give feverreducing medication for spiked temperatures below 100.4, a poll finds. However, medicating low-grade fevers isn't recommended

Half of parents would also use medicine if the fever was between 100.4 and 101.9 degrees and a quarter of parents would

likely give another dose to prevent the fever from returning. "Often parents worry about their child having a fever and want to do all they can to reduce their temperature. However, they may not be aware that in general, the main reason to treat a fever is just to keep their child comfortable," says pedia trician Susan Woolford, codirector of the C.S. Mott Children's Hospital National Poll on Children's Health at University of Michigan Health.

"Some parents may immediately rush to give their kids medicine but it's often better to let the fever runs its course. Lowering a child's temperature doesn't typically help cure their illness any faster. In fact, a lowgrade fever helps fight off the infection. There's also the risk of giving too much medication when it's not needed, which can have side effects."

The method used to take a child's temperature matters and can affect the accuracy of the measurement, Woolford notes.

LET THE FEVER DO ITS JOB

fever can be beneficial,

A and there are several rea-



Parents polled, most commonly take their child's temperature by forehead scan or mouth while less than a sixth use ear.

underarm, or rectal methods. Remote thermometers at the forehead or inside the ear canal can be accurate if used correct ly. But forehead readings may be inaccurate, Woolford says, if the scanner is held too far away or if the child's forehead is sweaty With ear thermometers, which aren't recommended for newborns, earwax can also interfere with the reading.

For infants and young chil dren, rectal temperatures are most accurate. Once children are able to hold a thermometer in their closed mouth, oral temperatures also are accurate while armpit temperatures are the least accurate method

used, it's important that parents review the directions to ensure

sickness, Woolford says.

Evidence shows that fevers

pain, fever-reducing medica-

tion may delay a diagnosis

being made and delay receiv-

continues for an extended

period of time. Parents o

voung children. in particular

ing treatment if needed.'

"Regardless of the device

sons to let a low-grade fever are part of the immune run its course in older chilresponse to prevent viruses dren. mainly because it's and bacteria from replicating working as a weapon to kill and also produce more white the virus or bacteria causing blood cells and antibodies. Fever-reducing medications also mask symptoms Woolford says. "By masking

edications used to **IVI** lower temperatures also treat pain, but pain is often a sign that helps to locate the source of an infection,'

DON'T OVERDO IT

XX7 hen parents choose to V give fever-reducing medication, it's helpful to keep a log of temperature readings and when they gave the child medicine. This will provide an accurate record in the event that the child's fever

along with fever-reducing medications due to the risk of over dosage.

should also avoid using com bination cold medications











Emperor Aurangzeb seated on a golden throne in his durbar.

love for poetry and Sufism.

In 1657, the brothers started

fighting for the throne, even when

Shah Jahan was alive. Jahanara.

although close to Dara, tried to stop

the fratricidal wars. She appealed to

Murad and Shah Shuja, quite unsuc-

cessfully, to stop fighting. Aurangzeb

arrived with a powerful army to

fight Dara and Shah Jahan.

Jahanara appealed to Aurangzeb not

to fight his own father; she proposed

a partition of the land among the

Timurids would have done). She

received a cold reception from

Aurangzeb, he now perceived her as

part of the enemy camp. He

lenounced Dara as an infidel

(Roshanara's smear campaign had

worked!). Aurangzeb would settle for

othing less than the whole empire.

Aurangzeb captured Dara. Some

scholars believe that Roshanara

egged Aurangzeb to behead Dara (in

all probability, Aurangzeb needed no

prompting, though). Shah Jahan was

placed under house-arrest in Agra,

and Jahanara voluntarily accompa-

nied him to look after him. In any

case, Aurangzeb dismissed Jahanara

from the Padshah Begum post and

appointed Roshanara instead.

the battles that ensued,

sons (like their ancestral



the method is appropriate for the child's age and that the device is placed correctly when measuring temperature." Three in four parents say they take their child's temperature as soon as they notice a possible problem, while a little less than a fourth wait to see if the problem continues or worsens before taking the temperature. "A quarter of parents would

give their child more medicine to prevent a fever from return ing even though it doesn't help them get better." Woolford says. "If a child is otherwise doing well, parents may consider monitoring them and using alterna tive interventions to help keep them comfortable." However, if a newborn or infant less than three months old has a fever. they should immediately see a health professional, Woolford adds. She shares more tips on how to handle fevers in kids!



KNOW WHEN TO CALL THE DOCTOR

🔽 or infants and newborns $\mathbf{\Gamma}$ three months and younger, any sign of a fever should prompt a call to the provider For children 4-12 months old parents should consult with a doctor if a fever is accompanied by signs such as decreased activity, increased fussiness, or decreased urine output. Parents should also call if their child has signs of pain or if they are not acting themselves even when their temperature comes down. Fevers that reach 104 degrees or fevers that remain for an extended period (more than 24 hours for children under two, or more than three days for children ages two and older) should prompt contact with the provider.

By Jerry Scott & Jim Borgman