

# MEDICAL ACADEMY NAMED AFTER S.I.GEORGIVSKY OF VERNADSKY UNIVERSITY



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**GROUP-LA2-203(2)**  
**TOPIC-BABESIOSIS**

# Babesiosis



# How It's Caused

## Vector



Deer Tick  
*Ixodes scapularis*

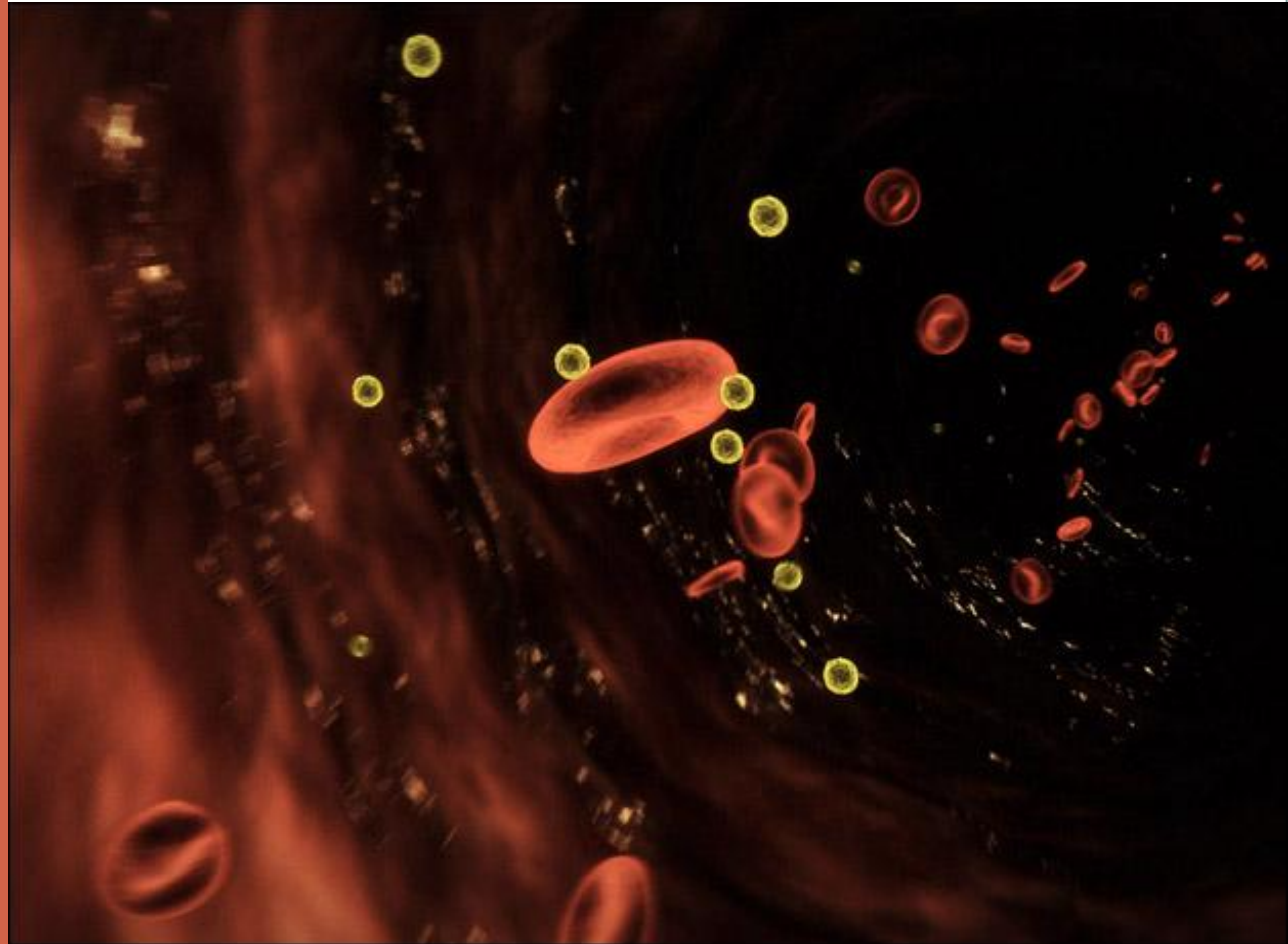
- ❖ Ticks bite primary carrying host, usually a white-footed mouse, meadow vole, or white-tailed deer
- ❖ Ticks get infected with microscopic parasite, Babesia
- ❖ Ticks bite humans, spreading the parasite



# Symptoms

- Developing 1-12 months after the bite

- ❖ Chills
- ❖ Fever
- ❖ Severe headache
- ❖ Muscle pain
- ❖ Anemia
- ❖ Fatigue

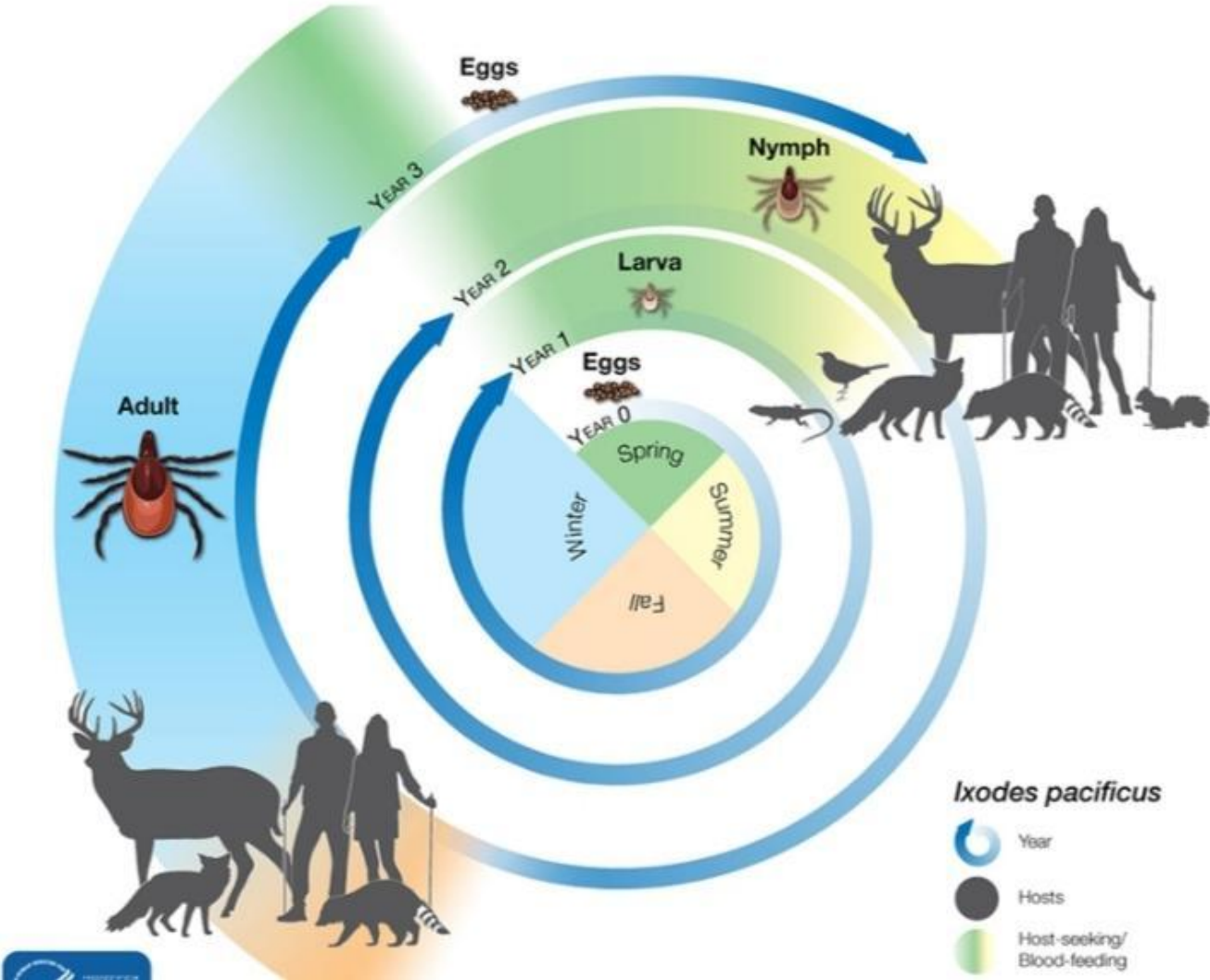


# Range in the INDIA



- ❖ Most cases happen along the south india(kerela,Tamil Nadu, etc.) and in the nort-east side.
- ❖ Less than a few hundred cases reported in the past two decades
- ❖ Most cases occur in spring and summer

# LIFE CYCLE OF TICKS AND MITES



# Treatment



Tick must be carefully removed from the skin. Further treatment is rarely needed.

For more serious complications, a medicine regimen is given and for critical complications, a blood transfusion is usually performed.

Rare complications include:

- ❖ Low blood pressure
- ❖ Respiratory problems
- ❖ Kidney failure

# Prevention

- ❖ Wear light colored clothing when walking through forest/areas with high-growing vegetation.
- ❖ Tuck pants into socks
- ❖ Wear long sleeves, long pants, and shoes that fully cover your feet.
- ❖ Wear tick repellent





# TICKS AND MITES CHARACTERISTICS



**MOST MITES AND TICKS HAVE OVAL SHAPE BODIES,  
WITH TWO BODY REGIONS(PROSOMA AND  
OPISTHOSOMA)THAT MAY APPEAR FUSE TOGETHER.  
THE ACARI ARE INDEED SMALL , MANY MEASURING A  
MERE MILLIMETER LONG ,EVEN AS ADULTS . TICKS AND  
MITES GO THROUGH FOUR LIFE CYCLES STAGES -:EGG,  
LARVA, NYMPH, ADULT.**

# ETIOLOGY OF BABESIOSIS DISEASE

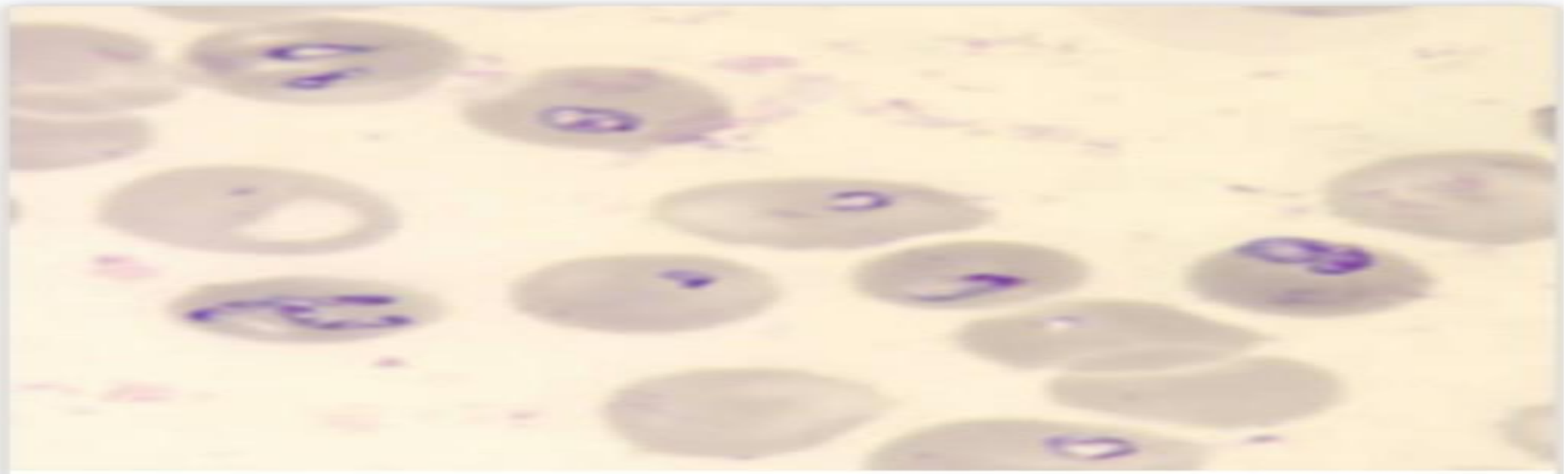


## CAUSE OF BABESIOSIS

**BABESIOSIS IS CAUSED BY INFECTION BY MALARIA LIKE PARASITE OF THE GENUS BABESIA. THE BABESIA PARASITE CAN ALSO BE CALLED NUTTALIA. THE PARASITE GROWS AND REPRODUCES INSIDE THE RED BLOOD CELL OF THE INFECTED PERSON OR ANIMAL, OFTEN CAUSING INTENSE PAIN DUE TO THE RUPTURE OF THE RBC CELLS.**

# LABORATORY DIAGNOSIS OF BABESIOSIS DISEASE

IN SYMPTOMATIC PEOPLE, BABESIOSIS USUALLY DIAGNOSED BY EXAMINED BLOOD SPECIMENS UNDER A MICROSCOPE AND SEEING BABESIA PARASITES INSIDE THE RED BLOOD CELLS.



*Babesia* parasites in red blood cells on a stained blood smear. (CDC)

# Pathogenesis of Babesiosis disease

- Babesiosis is an infectious disease caused by protozoa of the genus *Babesia* and is transmitted primarily by tick vector. Transmission rarely occurred through blood transfusion, organ transplantation, or congenitally. *Babesia* protozoa infect mammals and cause lysis of host RBC.

