

CHICKENPOX



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Batch 2013

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INTRODUCTION

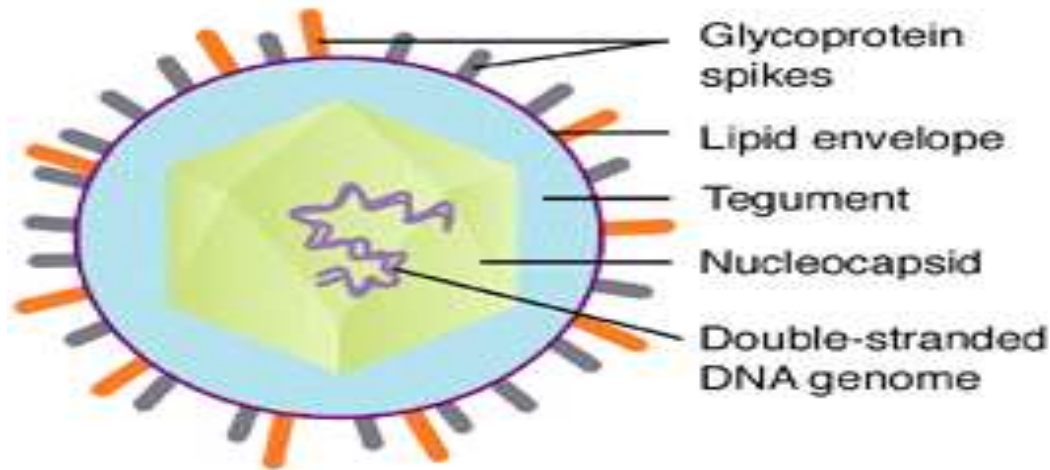
- **WHAT IS CHICKENPOX?**
- **CHICKENPOX IS CAUSED BY A VIRUS CALLED VARICELLA ZOSTER.**
- **PEOPLE WHO GET THE VIRUS OFTEN DEVELOP A RASH OF SPOT THAT LOOKS LIKE BLISTER ALL OVER THEIR BODIES.**
- **THE BLISTERS ARE SMALL AND SIT ON A AREA OF RED SKIN THAT CAN BE ANYWHERE AND THEY ARE OF VARYING SIZE**

- **CHICKENPOX ALSO KNOWN AS VARICELLA**
- **DNA VIRUS**
- **MOST COMMON IN WINTER AND SPRING**



VARICELLA ZOSTER VIRUS

- VZV also known as human herpesvirus 3 (HHV3) belongs to the herpesvirus family.
- The envelope is interspersed by spikes made up of viral glycoproteins.
- The VZV genome is double stranded DNA coiled upon a protein axis.



Structure of the varicella-zoster virus particle

SYMPTOMS

- **LOSS OF APETITE**
- **COLD**
- **FEVER**
- **ABDOMINAL PAIN**
- **HEADACHE**
- **GENERAL FEELING OF ILLNESS**
- **RASH**
- **FATIGUE**
- **SORE THROAT**
- **FEVER MAY BE HIGH FOR FIRST FEW DAYS**

DIAGNOSIS

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graph TD; A[DIAGNOSIS] --> B[BY SIGNS & SYMPTOMS]; A --> C[LAB DIAGNOSIS]
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BY SIGNS &
SYMPTOMS

LAB
DIAGNOSIS

LAB DIAGNOSIS

- **LAB DIAGNOSIS IS USUALLY NOT REQUIRED BUT IF REQUIRED THERE ARE SOME TESTS.**
- **MOST FREQUENT SOURCE OF ISOLATION IS VESICULAR FLUID.**
- **STAINED SMEARS FROM VESICULAR SCARPINGS.**
- **SEROLOGY TESTS FOR VARICELLA IgM ANTIBODY.**
- **ELISA TEST IS ALSO USEFUL.**

ETIOLOGY

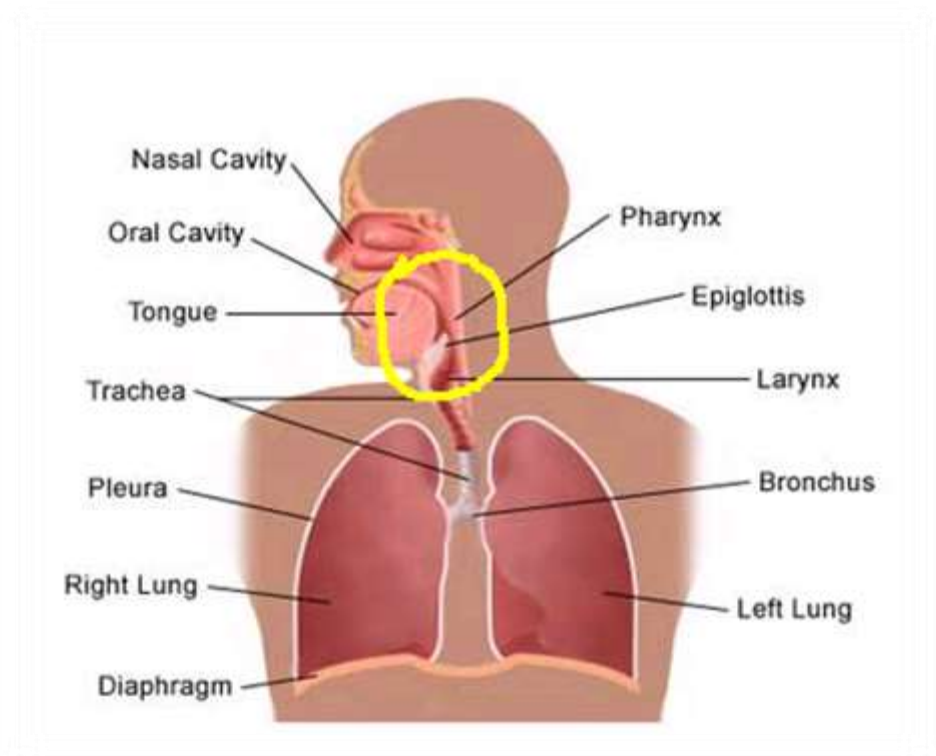
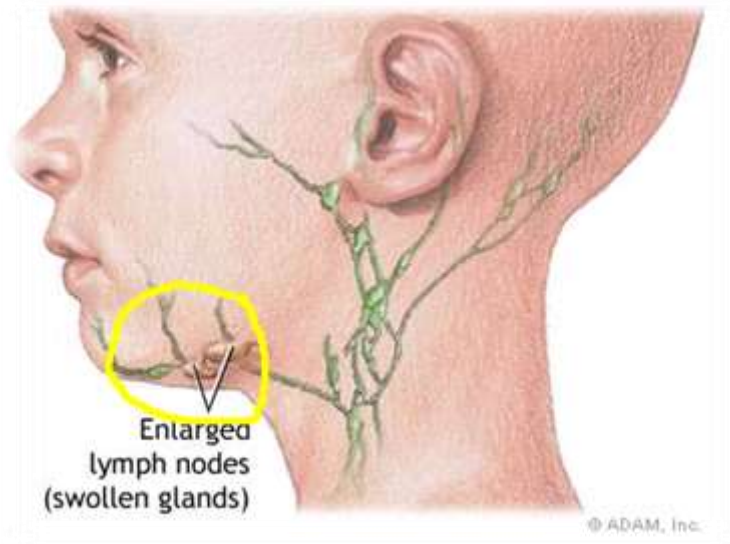
- **VARICELLA ZOSTER VIRUS CAN CAUSE TWO DISTINCT LESIONS**
- **CHICKENPOX – PRIMARY LESION**
- **HERPES ZOSTER – REACTIVATED LESION**



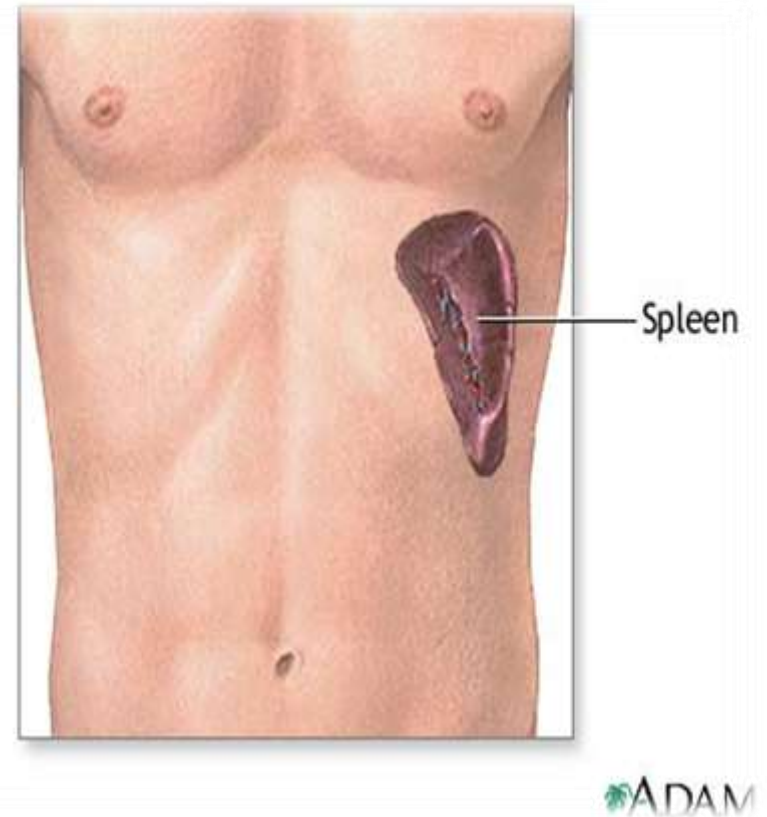
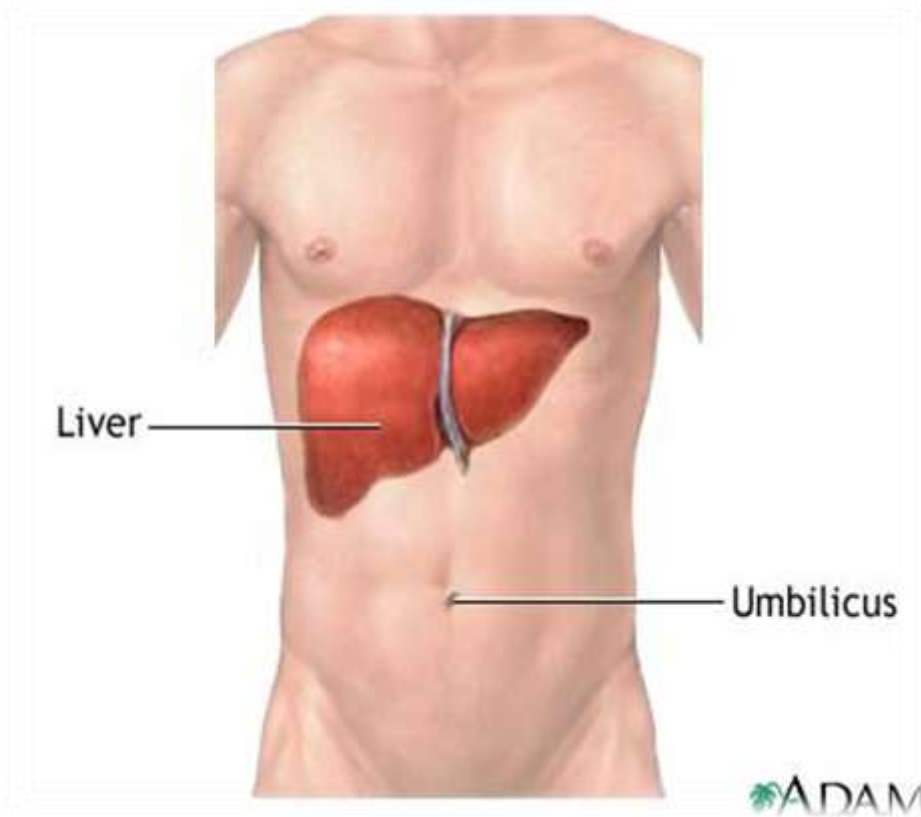
- **INCUBATION PERIOD IS 2 WEEKS**
- **MOST CONTAGIOUS**
- **UBIQUITOUS**
- **LESS SEVERE THAN SMALL POX**
- **YOUNG CHILDREN GENERALLY HAVE EITHER NO OR A VERY MILD EFFECT**

PATHOGENESIS

- DAY 0-3 - INFECTION OF CONJUNCTIVAE AND MUCOSA OF THE UPPER RESPIRATORY TRACT.
- VIRAL REPLICATION IN REGIONAL LYMPH NODES

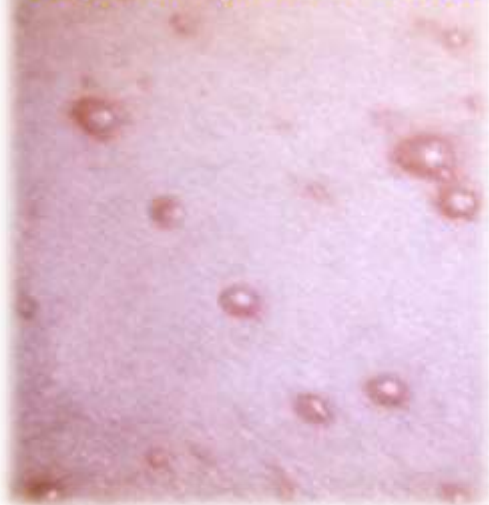


➤ **DAY 4-6 - PRIMARY VIREMIA, VIRAL INFECTION
IN LIVER, SPLEEN AND OTHER ORGANS**



- **DAY 10-12 - SECONDARY VIREMIA**
- **DAY 14 - INFECTION OF SKIN AND APPEARANCE OF VESICULAR RASH**

Early chickenpox rash - blisters



1ST EXPOSURE

- **BODY FIRST EXPOSED CREATES ANTIBODIES**
- **IgM**
- **IgG**
- **IgA**
- **B & T MEMORY CELLS ARE ALSO CREATED**
- **IF THE VIRUS IS IN THE BODY AGAIN THE MEMORY CELLS WILL DETECT IT.**
- **THIS WILL HELP A FASTER RESPONSE.**
- **IF THERE IS A 2ND EXPOSURE, MEMORY CELLS WILL STIMULATE TO CREATE ANTIBODIES.**

TRANSMISSION

- **ACQUIRED BY INHALING VIRUS CONTAINING PARTICLES, TRAPPED IN TINY DROPLETS RELEASED INTO THE AIR FROM THE NOSE OR THROAT OF AN INFECTED PERSON .**
- **THE VIRUS ENTERS THE BODY BY INFECTING CELLS IN THE RESPIRATORY TRACT.**
- **IT SPREADS TO MANY OTHER PARTS OF THE BODY, INCLUDING THE SKIN, WHERE IT CAUSES THE CHARACTERISTIC RASH.**

- **A PERSON WITH CHICKENPOX IS CONTAGIOUS 1-2 DAYS BEFORE THE RASH APPEARS AND UNTILL ALL BLISTER HAVE FORMED SCABS.**
- **IT TAKES FROM 10-21 DAYS AFTER AN INFECTED PERSON FOR SOMEONE TO DEVELOP CHICKENPOX.**

STAGES OF CHICKENPOX

INCUBATION PERIOD USUALLY(14-17 DAYS)



PRODROME(1-3 DAYS)



VESICLES



PUSTULES



SCABS



RECOVERY TYPICALLY 7 DAYS AFTER RASH APPEARS

ORAL MANIFESTATION

- **SMALL BLISTER LIKE LESIONS OCCASIONALLY INVOLVE THE ORAL SIDE MUCOSA CHIEFLY THE BUCCAL MUCOSA,TONGUE,GUMS AND PALATE AS WELL AS THE MUCOSA OF THE PHARYNX.**
- **THE MUCOSAL LESIONS,INITALLY SLIGHTLY RAISED VESICLES WITH A SURROUNDING ERYTHEMA,RUPTURE SOON AFTER FORMATION AND FORM SMALL ERODED ULCERS WITH A RED MARGIN.**

THESE LESIONS ARE NOT PARTICULARLY PAINFUL



COMPLICATION

- **BACTERIAL INFECTION OF LESIONS**
- **PNEUMONIA**
- **HOSPITALIZATION: 3 PER 1000 CASES**
- **DEATH: 1 PER 60000 CASES**
- **CNS INVOLVEMENT LEADS TO ENCEPHALITIS, TRANSVERSE MYELITIS, REYE'S SYNDROME**
- **MYOCARDITIS, NEPHRITIS, ARTHRITIS**

INCREASED RISK OF COMPLICATION

➤ **NORMAL ADULTS**

➤ **IMMUNO COMPROMISED PERSON**

➤ **PREGNANT WOMEN**

CHICKENPOX DURING PREGNENCY MAY RESULT:

- **CONGENITAL VARICELLA SYNDROME**
- **SEVERE VARICELLA SYNDROME**
- **RISK OF NEONATAL DEATH**

TREATMENT

- **DRUGS USED IN THE TREATMENT OF CHICKENPOX ARE ANTIVIRALDRUGS ,ANTIHISTAMINES & ANTIPYRETICS.**
- **COMMOLNLY USED DRUG IS ACYCLOVIR AVAILABLE AS ZOVIRAX IN THE MARKET, FAMICLOVIR AVIALABLE AS FAMVIR & FOSCARNET AVAILABLE AS FOSCOVIR.**
- **ANTIVIRAL MEDICINES CAN BE TAKEN ORALLY INTRAVENOUSLY OR APPLIED ON THE SKIN.**
- **THESE ARE PRESCRIBED TO PEOPLE WITH LONG TERM ILLNESS.**
- **IMPAIRED IMMUNE SYSTEM & PREGNANT WOMEN.**
- **ALSO OTHER DRUGS ARE GIVEN TO REDUCE FEVER, COLD, ITCHING, IRRITATIONOF THE RASH , SORE THROAT etc.**

PREVENTION

- **CHICKEN POX OR VARICELLA VACCINE PROTECT 70% TO 90% OF THOSE PEOPLE WHO ARE VACCINATED.**
- **VARICEELA VACCINE CONTAINS LIVE VIRUS AND SO IS NOT RECCOMENDED TO CHILDREN HAVING COMPROMISED IMMUNE SYSTEM OR SEVRE ILLNESS.**
- **THE VACCINE SHOULD NOT BE GIVEN TO CHILDREN WHO ARE ALLERGIC TO NEOMYCIN OR GELATIN.**
- **THIS VACCINE IS GIVEN TO ADULTS WHICH ALSO PREVENTS SHINGLES.**
- **SIDE EFACT OF VACCINE IS REDNESS OR SORENESS AT THE SITE OF INJECTION.**

Chicken Pox Vaccine Dose	Chicken Pox Vaccine Age
1 st Dose	12–15 months of age
2 nd Dose	4–6 years of age (may be given earlier, min gap of 3 months after the 1st dose)
People not been vaccinated earlier or Chicken Pox Vaccine for adults	People 13 years of age and older should get two doses at least 28 days apart.

Treating Chicken Pox with Folk Medicine



aloe vera



garlic



valerian



lemon



ginger



calendula



echinacea

Treating Chicken Pox with Scientific Medicine



Tylenol



Claritin



Calamine Lotion



Benadryl



Zyrtec

THANK YOU

