

Lec 1

2 marks

Hepatitis D virus (HDV) - Defective virus, Delta agent (only cause infection when HBV present)

- About transmission:
- 1) HBV and HEV are feco-oral (contaminated water)
 - 2) HBV, HCV and HDV → blood, mother to child organ transplantation patient and hemodialysis patients
 - in HBV yes ← sexual ↓ milk ↓
 - in HDV No
 - in HCV yes but less than HBV

HBV and HCV can be considered oncoviruses

Chronic HCV treated by → Antiviral medications (Direct acting antiviral)

Lec 3

Picornaviruses (RNA viruses)

Rhinoviruses

- 3 groups (A, B, C)
- Receptors: ICAM1 + LDLR
- Acid labile
- hand hand eye objects → So prevented by hand washing
- Cause Acute asthma
- Common in fall, winter and spring

Enteroviruses

Poliovirus

- mainly is the portal of entry
- OPV and IPV vaccines
- Asymptomatic
- Acute flaccid paralysis
- Non paralytic
- Paralytic (flaccid)

Coxsackievirus

- Aseptic meningitis
- Herpangina (AF)
- Acute febrile illness
- Common cold
- Hand foot & mouth dis
- Pleurodynia (ES)
- Myocarditis (can be fatal)

Echovirus

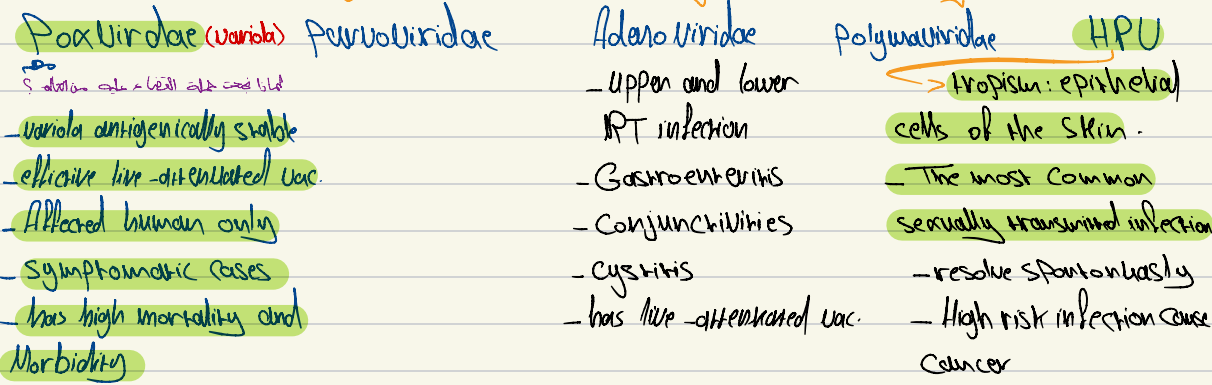
enterovirus

parechovirus

Lec 4

2 marks

DNA viruses



- Clinical features for HPV: 1) common warts

2) Condyloma acuminata caused by HPV 6 + 11

3) laryngeal papilloma

4) cervical cancer by HPV-16 + 18

- HPV prevented by subunit vaccines:

- 1) Cervarix (for HPV-16 + 18)
- 2) Gardasil (for HPV-6 + 11 + 16 + 18)
- 3) Non valent vaccine.

- The global HPV prevalence is 100%.

#lec 5

1 mark

RNA viruses

Orthomyxoviridae (influenza viruses)

- Negative sense (segmented genome)
- 3 types (A, B, C) → Different in nucleoprotein
- Cause pneumonia (secondary bacterial)
- High fever and chills
- live-attenuated vac.

- Type A can cause pandemics as a result of antigenic shift
- Type A and B can cause seasonal outbreaks as a result of drift

Coronaviridae

- positive sense RNA
- mortality with MERS higher than SARS.

سكوت الی و كیح سوه حنطی

فارسف الی توك الماعی

واخیری بآب الله نور

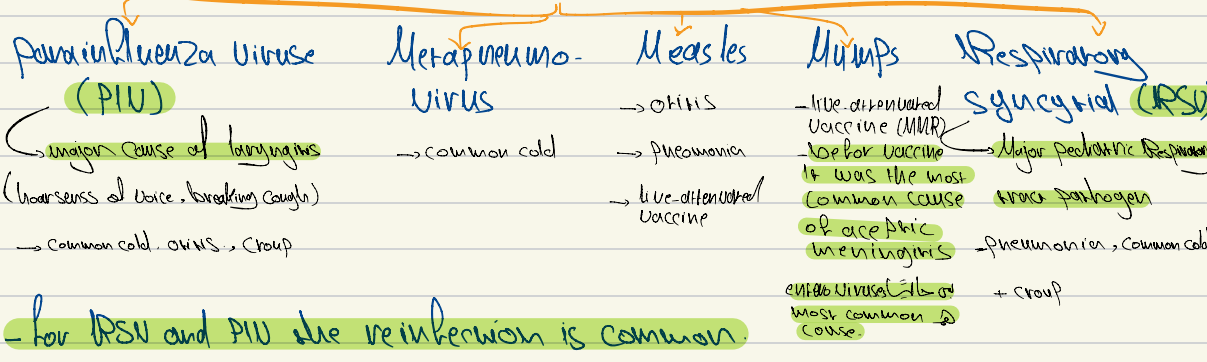
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العلم السانی

#lec-6

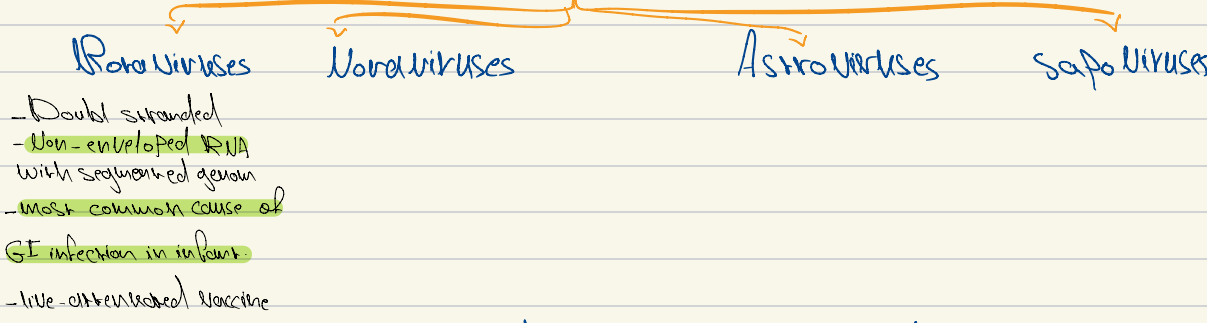
Use of RT → ...
 Site of RT by ... of RT → ...

- Paramyxoviruses



- The most important one of togaviridae is Rubella virus which cause the rubella (have live-attenuated vaccine MMR)

- Viruses that cause gastroenteritis (feco-oral)

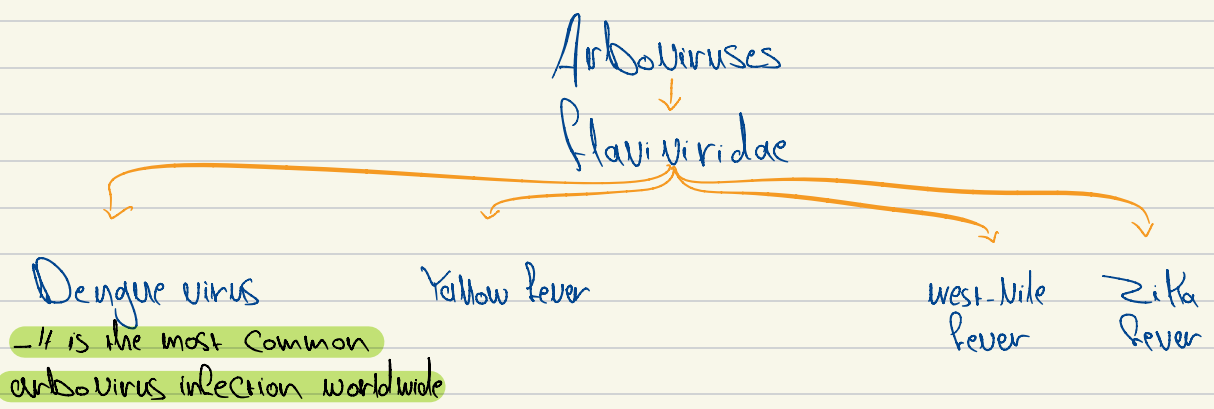


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#lec 7

- Filoviridae \rightsquigarrow Ebola virus

- Phloboviridae \rightsquigarrow Rabies virus multiplies in muscle or connective tissue at the site of inoculation and then enter peripheral nerves at neuromuscular junctions and spreads up the nerves to the central NS causing encephalitis.
once in the CNS, rabies is fatal (100%) (bullet-shaped)



Lujain Ahmad

Present on Covid 19 & Covid 2