

CORYNEBACTERIUM DYPHTHERIA

characteristic : Pleomorphic . Aerobic . part of normal flora
in Respiratory - Urinary tract and skin
Chinese character arrangement
remain attached after division

Diseases : Diphtheria (acute serious highly infectious disease)
pharyngitis . tonsillitis
Exudate . Gray white pseudomembrane
cervical adenitis (bull neck)
mechanical obstruction
myocarditis . cardiac enlargement . arrhythmias . CHF

Listeria monocytogenes

characteristic small
flagellated (motile) at 37°C and 25°C
can survive at cold temperature even below zero

Transmission source Food
mechanism of action transmitted transplacentally
diseases placenta infection
intrauterine infection
still birth

Treatment Ampicillin
TMP - SMX

GRAM +ve Bacilli

Bacillus anthracis

characteristic Large
non motile
rectangular
arranged in chains

Transmission source animals and its products

Types 1. cutaneous anthrax (wound infect)
2. Hemorrhagic pneumonia and septicemia (inhalation)

Effect High fatality
Biological war agent

Clostridium

Clostridia botulinum

Transmission source food intoxication
canned food : meat . fish . beans . mushroom

mechanism of action toxin acts as metalloprotease on neuromuscular junction and blocks the release of acetylcholine at presynaptic membrane

effect Flaccid paralysis of motor system

note most potent toxin

Clostridium tetani

transmission source puncture wound with a splinter

mechanism of action release neurotoxin (tetanus toxin . tetanospasmin)

effect inhibitory neuron

unopposed firing of active motor neuron

incubation period : 4 days

effect spasmodic paralysis of masseter muscle

trismus (inability to open mouth) lock jaw

Gram -ve cocci

Neisseria gonorrhoeae

Transmission source sexually transmitted infection

Areas of infection warm moist areas

1. urethra
2. vagina
3. eyes
4. throat
5. Anus
6. female reproductive tract
 - a. fallopian tubes
 - b. cervix
 - c. uterus

Characteristics diplococci
non motile
non spore forming
not part of normal flora
bean or kidney shaped

Notes second most common STI

50% asymptomatic in female

95% symptomatic in male

sensitive to heating or drying

causes disease only in human

Neisseria meningitidis

characteristics encapsulated

small

member of normal flora of upper respiratory tract

less sensitive than gonorrhea

effect cause life threatening disease if bacteria invade blood or cerebrospinal fluid

fever, fatigue, weakness

CNS: convulsion, motor disability

loss of consciousness

thrombocytopenia, bleeding, skin petechiae

disseminated intravascular coagulation

fatal if not treated in 6 hours