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Review Article

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ROLE OF HOMOEOPATHY IN K.F.D.

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INTRODUCTION

 KYASANUR FOREST DISEASE(KFD) is a febrile disease associated with haemorrhagescaused by an arbovirusflavivirusand transmitted to man by bite of infective TICKS.

HISTORY

- KFD was first recognized in 1957 in Shimogadistrict of Karnataka state in South India.
- Local inhabitants called the disease "MONKEY DISEASE" because of its association with dead monkeys.
- The disease was later named after the locality –KYASANUR FOREST-from where the virus was first isolated.

KFD

Kyasanur forestdisease.

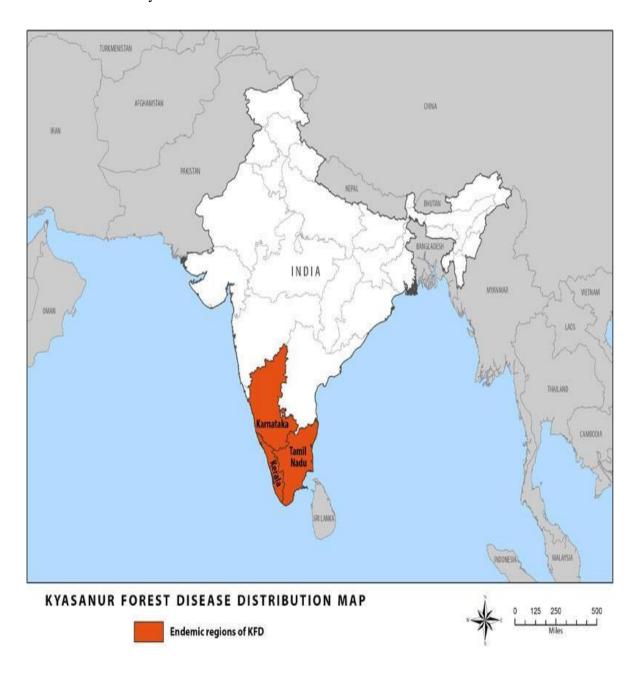


PROBLEM STATEMENT

• Earlier the disease was found to be limited mainly to an area around the original focus

(Shimoga district) covering about 800sq.km.

- Newer foci have since been recognized.
- The disease is now restricted to four districts (Shimoga, North Kannada, South Kannada and Chikamagloor) in KarnatakaState in India covering over 6000 sq.km.
- According to the reports, about 400-500cases occur every year.
- The Karnataka Government has established a surveillance system which monitors the
 occurrence of KFD in humansand mortality in monkeys in known EPIDEMIC areas, as
 well as neighbouring areas.
- Death of monkeys are considered as heralders of this disease in endemic areas.





Epidemiological Determinants

- **AGENT:** The agent KFD virus is a member of group B togaviruses (flaviviruses). It is antigenically related to other tick-borne flaviviruses, particularly the Far Eastern tick-borne encephalitis and Omsk haemorrhagic fever. Unlike in many other arbovirus infections, KFD has a prolonged viraemia in man for about 10 days or more.
- **(b) NATURAL HOSTS AND RESERVOIRS:** Small mammals particularly rats and squirrelsare the main reservoirs of the virus.
- Birds and bats are less important hosts.
- The monkeys are recognized as amplifyinghosts for the virus.
- However, they are not effective maintenance hosts because most of themdie from KFD infection.
- Cattle provide *HAEMAPHYSALIS* ticks with a plentiful source of blood meals, which in turn leads to a population explosion among the ticks.

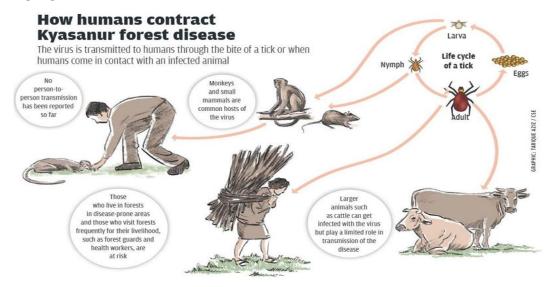
- Thus, cattle are very important in maintaining tick populations but no part in virus maintenance.
- Man is the incidental or dead end host, plays no part in virus transmission.
- (c) **VECTOR:** The virus has a complex lifecycle involving a wide variety of tick species.
- At least 15 species of hard ticks of the genus HAEMAPHYSALIS, particularly H. spinigera and H. turtura are known to transmit the disease.
- KFD has also been isolated from soft ticks.
- The highest number of human and monkey infections occur during drier months, particularly from january to june.
- This period coincides with the peak nymphalactivities of ticks.

Vector Haemaphysalis



- (d) HOST VECTORS: (1) AGE: Majority of cases affected were between 20 and 40 years.
- (2) **SEX:** Attack rate was greater in malesthan in females.
- (3) OCCUPATION: The attacked people were mostly cultivators who visited forests accompanying their cattle or cutting woods.
- (4) HUMAN ACTIVITY: The epidemic period correlates well with the period of greatest human activity in the forest; from January until the onset of rains in June.

LIFE CYCLE



MODE OF TRANSMISSION

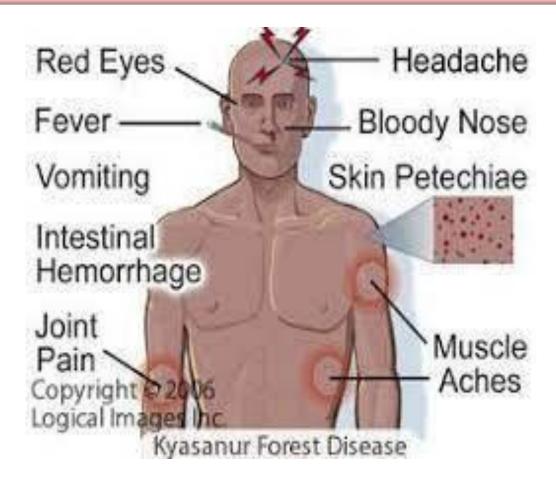
- The transmission cycle involves mainlymonkeys and ticks.
- The disease is transmitted by the bite of infective ticks, especially nymphal stages.
- There is no evidence of man to mantransmission.

INCUBATION PERIOD

• Estimated to be between 3 - 8 days.

CLINICAL FEATURES

- The disease appears with a sudden onset of fever,
- headache
- severe myalgia, with prostration in somepatients.
- The acute phase lasts for about 2 weeks.
- Gastro intestinal disturbances
- haemorrhages from nose, gums, stomachand intestine may occur in severe cases.
- In a number of cases, there is a second phase characterized by mild meningoencephalitis after an afebrile period of 7 to 21 days.
- It is manifested by a return of fever,
- severe headache followed by neck stiffness
- coarse tremors,
- abnormal reflexes and mental disturbances.
- The case fatality rate has been estimated tobe 5 to 10 %.



DIAGNOSIS

- It is established only after detecting the presence of virus in blood or serological evidence.
- ELISA
- PCR.

TREATMENT

- There is no specific treatment for KFD, but early hospitalization and support therapy is important.
- Support therapy includes the maintenance of hydration and usual precaution for patient with bleeding disorder.

VACCINATION

- Vaccine is also available.
- The population at risk should be immunisedwith Killed Kfd Vaccine.



CONTROL

- CONTROL OF TICKS: Since KFD is a tick-borne disease, control of tick should be undertaken.
- For control of ticks in forest, application can be made by power equipment or by air craft
- mounted equipment to dispense carbaryl, fenthion, naled or propoxur at 2.24 kg of active ingredient per hectar.
- The spraying must be carried out in "HOTSPOTS" i.e in areas where monkey deaths
 have been reported, within 50 meters around the spot of the monkey deaths, besides the
 endemic focii.

PROTECTION

- Protection of individuals exposed to the risk of infection by adequate clothing and insect repellants such as,
- DIMETHYLPHTHALATE(DMP,DEET)
- They should examine their bodies at the end of each day for ticks and remove them promptly.
- The habit of sitting or lying on down on the ground should be discouraged through health education.

HOMOEOPATHIC THERAPEUTICS

- **IPECACUANHA** (**IPECAC**): Haemorrhages bright-red from natural orifices like nostrils, mouth and especially from uterus, bowels, kidney, stomach, lungs.
- **HEAD-** Bones of skull feel crushed and bruised. Pain extends to teeth and root of

tongue.

- STOMACH- Constant nausea and vomiting, with pale, twitching of face.
- **FEVER-** Intermittent fever, slightest chill with much heat, nausea, vomiting and dyspnea
- (2) PHOSPHORUS: It is a great anti- haemorrhagic drug. Haemorrhage is caused by degeneration of tissue and occurs from small injuries or cut.
- Profuse, watery, bright-red blood which is non-coagulable. Bleeding from various organs and parts of the body.
- **FEVER-**Chilly every evening. Cold knees at night. Adynamic with lack of thirst, but unnatural hunger. Hectic, with small, quick pulse; viscid night-sweats. Stupid delirium.
- GIT- Empty all gone sensation in stomach. Great burning in stomach which is better by cold food and drinks but as soon as water becomes warm in stomach, it is thrown up in the form of vomiting.
- (3) LACHESIS: Haemorrhagic diathesis.
- Blood is dark watery, offensive and non- coagulable. Small wounds bleed easily and profusely.
- **HEAD-** Congestive Headache as if would burst, very sensitive to touch. There is pressing and bursting pain in temples.
- **FEVER-**Chilly in back, feet icy cold; hot flushes and hot perspiration. Paroxysm returns after acids. Intermittent fever everyspring.
- **GIT-** Pit of stomach painful to touch. Abdomen tympanic, sensitive, painful.
- (4) APIS MELLIFICA: HEAD- Whole brain feels very tired. Heat, throbbing, distensive pains, better on pressure, and worse on motion. Sudden stabbing pain. Dull, heavy sensation in occiput.
- **GIT-** Abdomen sore, bruised on pressure, when sneezing. Extremely tender. Dropsy of abdomen. Peritonitis.
- **FEVER-** Intermittent fever, chill begins at 3 pm with thirst, worse on motion and heat. Perspiration breaks out and rise up frequently. Sleeps after the fever paroxysm. Fever is continous and low type. After perspiration nettle rash also with shuddering.
- (5) **GELSEMIUM:** DULLNESS, DIZZINESS, DROWSINESS and TREMBLING or TREMORS are the keynotesymptoms of gelsemium.
- Tremors all over the body such as trembling of tongue, hands, legs and of entire body
- **HEAD-** Vertigo spreading from occiput heaviness of head, band-feeling around and

- occipital headache. Dull, heavy ache, with heaviness of eyelids, bruised sensation. Headache with muscular soreness of neck and shoulders.
- **FEVER-** Wants to be held because he shakes too much. Pulse slow, full, soft, compressible. Dumb-ague with much muscular soreness, great prostration, and violet headache. Bilious remittent fever withstupor, dizziness, faintness, thirstless, prostrated.
- PARALYSIS: Loss of power of muscular control. LACK OF MUSCULAR CO-ORDINATION IS WELL MARKED, CONFUSED, MUSCLES REFUSE TO OBRY THE WILL. Excessive trembling andweakness of all limbs.