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| --- | --- |
| Logo AGES | |
| Epizootic haemorrhagic disease | |
|  |  |
| 18.04.2025 05:26 Uhr | |

**Epizootic
haemorrhagic
disease**

**EHDV**

Last
change:
25.10.2023

**Profile**

Epizootic
haemorrhagic
disease
(EHD)
is
a
viral
disease
of
wild
and
domesticated
ruminants
and
camelids.
High
rates
of
disease
and
death
can
occur
in
certain
deer
species.
The
trigger
is
a
virus
related
to
the
bluetongue
virus
(EHDV),
which
is
also
transmitted
by
insects
(gnats).
EHD
has
also
been
occurring
in
Europe
since
2022.
This
year,
cases
were
reported
from
Italy
(Sardinia,
Sicily)
and
the
south
of
Spain.
In
2023,
the
disease
also
occurred
in
Portugal,
northern
Spain
and
France.
Humans
are
not
affected
by
the
disease.

**Occurrence**

worldwide

**Host
animals**

Most
wild
and
domesticated
ruminant
species
as
well
as
camelids
are
susceptible
to
infection
with
EHDV.
Classically,
the
disease
affects
white-tailed
deer
in
North
America.
Cattle
can
also
become
clinically
ill,
whereas
disease
in
small
ruminants
(e.g.
sheep,
goats)
or
camelids
does
not
usually
occur.
Before
its
first
appearance
in
Europe,
EHD
had
already
been
described
in
North
and
South
America,
Asia
and
Africa
(including
countries
bordering
the
Mediterranean
such
as
Israel,
Turkey,
Jordan,
Morocco,
Algeria
and
Tunisia),
as
well
as
Australia.

**Infection
route**

Transmission
takes
place
via
the
sting/bite
of
insects
(gnats;
*Culicoides*
sp.),
so
it
is
not
a
contagious
disease.
Unborn
calves
can
be
infected
in
the
womb
in
the
same
way
as
bluetongue.
In
temperate
zones,
infection
usually
occurs
in
late
summer/autumn,
whereas
in
tropical
zones
it
can
occur
all
year
round.

**Incubation
period**

2-10
days
(deer)

**Symptomatology**

Clinical
disease
mainly
affects
certain
deer
species,
but
can
also
occur
in
cattle.
Fever,
oedema,
respiratory
and
swallowing
problems,
haemorrhage,
inflammation
of
mucous
membranes
and
hoof
ligaments,
lameness,
lassitude
and
inappetence
may
occur.
Abortions
and
stillbirths
also
occur.
Peracute,
acute
and
chronic
forms
occur.

**Therapy**

A
specific
therapy
is
not
possible.
Diseased
animals
can
only
be
treated
symptomatically.

**Prevention**

Vaccines
are
occasionally
used
in
Japan
and
the
USA.
These
are
live
attenuated
vaccines
or
inactivated
vaccines.
There
is
currently
no
vaccine
licensed
in
the
EU.

**Situation
in
Austria**

EHD
has
not
yet
occurred
in
Austria.
We
have
established
procedures
for
the
virological
and
serological
diagnosis
of
the
disease,
with
which
suspected
cases
can
be
clarified
quickly.

**Specialized
information**

EHDV
are
non-enveloped
viruses
with
double-stranded
RNA
divided
into
10
different
segments.
At
least
eight
different
serotypes
are
distinguished.
EHDV
is
unstable
at
higher
temperatures
(inactivation
at
50
°C
and
3
h
exposure
time;
or
60
-
121
°C
and
15
min
exposure
time).
Organic
solvents
such
as
ether
and
chloroform
are
relatively
ineffective
(unenveloped
virus).
Disinfectants
based
on
ß-propiolactones,
2%
w/v
glutaraldehydes,
acids,
alkalis
(2%
w/v
NaOH),
2-3%
w/v
sodium
hypochlorite,
iodophores,
and
phenols
are
effective.

**Symptomatology**

EHD
is
an
important
differential
diagnosis
to
bluetongue
in
deer.
In
cattle,
bluetongue
(BT),
bovine
viral
diarrhea
(BVD),
foot-and-mouth
disease
(FMD),
infectious
bovine
rhinotracheitis
(IBR),
vesicular
stomatitis
(VS),
and
malignant
catarrhal
fever
(BKF)
are
considered
as
differential
diagnoses.
Sheep
and
goats
do
not
become
clinically
ill.

**Diagnostic**

Due
to
the
non-specific
symptoms,
a
laboratory
diagnostic
clarification
is
essential.
The
virus
itself
can
be
detected
very
sensitively
and
specifically
in
real-time
PCR.
Similar
to
BTV,
EHDV
is
also
detectable
in
EDTA
blood
for
a
long
time
(>
50
days
after
infection).
Antibodies
can
be
detected
by
competitive
ELISA
from
10-14
days
after
infection.

Sample
material
required:
EDTA
blood
and
serum
in
live
animal;
spleen,
lungs,
lymph
nodes,
liver
in
dead
animal.

In
all
cases,
samples
should
ideally
be
shipped
to
the
laboratory
with
refrigerants
and
in
compliance
with
the
relevant
transport
regulations
(UN3373)
by
an
authorized
logistics
company.

**Contact**

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