

Diagnostic tests

Allergic tests

It is one that elicits a sensitivity response in an animal following the injection of protein derivative of specific organism into its tissue to detect the early or late reaction of the animal to that specific disease .

In general allergy is a state of tissue hypersensitivity reflect the result of Ag-Ab reaction .

Tuberculin test...

There are 3 major methods of applying the tuberculin test ...

1- Ophthalmic tuberculin test :

Its rarely used because of its low specificity

2- S/c tuberculin test...

It also not used because its time consuming and depend on temperature response.

3-Intradermal tuberculin test....

This test is depend on the comparison between the mammalian and avian type of mycobacterium tuberculosis.

The mammalian tuberculin is prepared from the human or bovine strain of tubercle bacillus the prepared product is standardized to contain 2mg/ml purified tubercloprotien and the recommended dose is 0.1ml .

The avian type contain 0.5mg/ml purified protein derivative(PPD)and the dose is 0.1ml

Single Comparative intradermal tuberculin test....

1-Two different type of tuberculin ,mammalian and avian type will injected together intradermally in the skin of neck (in the middle portion of the neck)

2-the site were prepared by clipping the hair over each area .the upper site is placed at least 10 cm below the crest and the lower 12 cm away on the line roughly parallel with the slop of the shoulder .

3- 0.1ml of The avian tuberculin should inject at the upper site and 0.1ml of the mammalian at the lower ,the injection site should be cleaned with methylated spirit .

4-The thickness of the skin at each injection site should be recorded by measuring with caliper in millimeter .

5-The test is read by measuring the skin 72 h after injection

Interpretation

1-any swelling show edema it regard as positive reaction

2-skin swelling of 4 mm or more regard as positive reaction

3- skin swelling of 2mm regard as negative result

4- skin swelling of 3mm regard as doubtful

Mallein test for glanders ...

Mallein is a test used for diagnosis of glanders in horses .its a bacteria free filtrate from fluid culture of *Actinobacillus (Malleomyces)mallei*

Intradermopalpebral test

1-0.1ml of mallein is injected into the skin of lower eye lid which is then re-examined after 48h.

2-The tuberculin syringe and needle are used

3-Tensing the skin of the lower eye lid with the finger of the free hand will assist needle penetration

Interpretation ...

The positive result indicated severe inflammatory edema with severe purulent conjunctivitis will develop after 48h.

Allergic test for Johne's disease...(Johnin)

Single intradermal test...

1-0.2ml of PPD johnin is injected intradermally into the skin of neck and the results will read after 48 h.

2- the positive reaction is indicated an edematous swelling with increase skin thickness as more than 3mm

3-Tuberculin syringe and needle will use .

Serological tests....

It used for diagnosis of specific Abs in the serum ...such as

1-Agglutination test

2-Complement fixation test

3-Hemagglutination test

4-Elisa test