

ANTISERA (IMMUNE SERA, SEROTHERAPY)

These are preparations containing antibodies introduced into the body of patient to provide passive immunity.

- They are used with advantage that they provide immediate and effective supply of antibodies.
- Antisera are used both prophylactically and therapeutically.

Types:

1. Non specific Antisera e.g. Normal human immunoglobulins.
2. Specific Antisera e.g. antitoxins, antibacterial and Antiviral sera.

NON-SPECIFIC ANTISERA**HUMAN NORMAL IMMUNOGLOBULINS**

Y - Globulin injection contains almost all globulins of human plasma together with smaller amounts of other plasma proteins. Y - Globulin consists of three distinct components IgA, IgG, IgM. It is given I/m and is useful in number of viral and life threatening bacterial infections. Since they are prepared from humans, so are well tolerated.

SPECIFIC ANTISERA ANTITOXINS:

These are antibodies to toxins of microorganisms which combine with toxins to neutralize its toxicity."

EXAMPLES

Diphtheria antitoxins, Gas gangrene antitoxins, tetanus antitoxins, staphylococcus antitoxins.

ANTI-BACTERIAL SERA

These provide passive immunity against diseases caused by endotoxin producing bacteria.

They are prepared in the same way as antitoxins except.

- A.** I/V routes are used for injection.
- B.** Methods of refining the sera are different because antibacterial antibodies are associated with γ -globulin fractions.

EXAMPLE

Leptospira antiserum (BPC)

ANTI-VIRAL SERA

Antiviral antibodies are believed to act differently because viruses are intracellular parasites and antibodies cannot penetrate cells therefore inactivation must take place in body fluids.

PREPARATION

Most of antiviral sera are prepared in humans since horses are not susceptible to several viral diseases.
However, Rabies antiserum is prepared in horses.

